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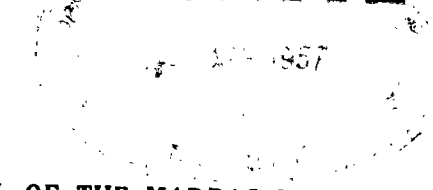
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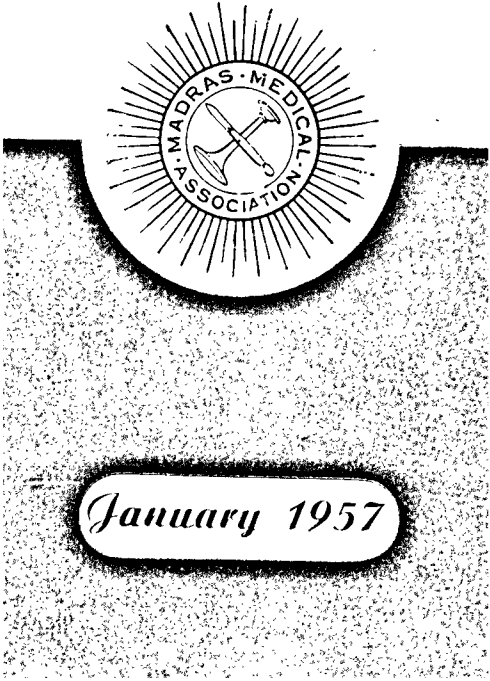
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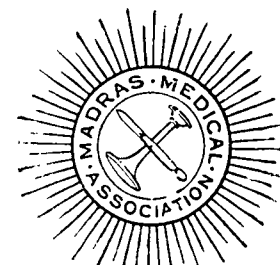
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The Madras Medical Journal

MADRAS

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The Official Journal of the Madras Medical Association



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The Editor

Vol. 1

JANUARY 1957

No. 1

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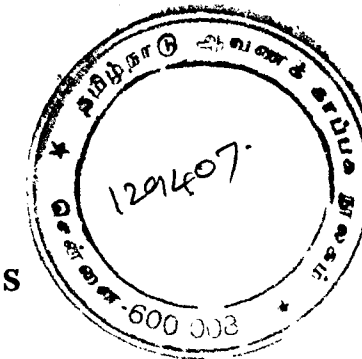
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CONTENTS



	Page
1. Medical Aspects of Amoebiasis ...	1
Dr. R. Subramaniam	
2. Effect of Histamine Drip in Hemiplegia ...	13
Dr. K. S. Janakarathnam	
3. Use of Hyaluronidase by Iontophoresis ...	17
Dr. K. M. Syed Mohamed	
4. Nitrogen Mustard in the treatment of Nephritis and Nephrosis ...	19
Dr. (Miss) M. Sharda Menon	
5. Dr. M. R. Guruswamy Mudaliar— “My guru” ...	25
Dr. R. Subramaniam	
6. Clinical Reports—	
Govt. Ophthalmic Hospital ...	31
Govt. Hospital for Women & Children...	35
Govt. Mental Hospital ...	50
Govt. Stanley Hospital ...	57

The Editor does not hold himself responsible for the opinions expressed by the different contributors.

*Our thanks are due to Messrs. Ravai & Sons
and Messrs. Klein & Peyerl for their sincere
co-operation, the prompt and neat execution.*

—EDITOR

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Born 14th October 1887. Graduated in Arts and Medicine from the University of Madras. M.D. (1922), F.R.C.O.G. (1930), F.A.C.S. (1940). Was Professor of Obstetrics and Gynaecology, Madras Medical College, 1934—42, and Principal, Madras Medical College, 1939—42. Member of the Syndicate, Madras University, since July 1925. Vice-Chancellor of the University since August 1942 up-to-date.

Represented the University at the Quinquennial Conferences of the Indian Universities held in 1929, 1934, 1939, 1943, 1948 and 1953. Chairman, Inter-University Board of India, 1948—49 and of the Standing Committee since 1949. Member, All India Medical Council, since its inception in 1931. Member of the Bhole Committee on Medical Relief and Education and Chairman of the Education Sub-Committee. Member, Central Advisory Board of Education and of the Governing Body of the Council of Scientific and Industrial Research. Member, All India Council for Technical Education.

Member of the Indian Delegation to the World Health Organization at all its annual conferences from 1948 to 1956; led the Delegation in several years. Was Chairman of the Executive of the World Health Organization. Member of the Indian Delegation to U.N.E.S.C.O. since 1951. Elected Chairman of Executive Board of U.N.E.S.C.O. in 1954.

Member of the University Commission of 1948 and Chairman of the Secondary Education Commission, 1953. Member of the University Grants Commission and of the National Commission for U.N.E.S.C.O.

Was awarded Honorary Degrees: D.C.L. (Oxford) 1942; D.Sc. (Andhra), Patna, Lucknow 1948; LL.D. (Glasgow) 1951; D.Sc. (Calcutta) January, 1955.

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Member of the Padma Bhushan since the 15th August 1954 by the President of India. Was awarded the Padma Bhushan by the University of Madras during their Centenary Celebrations Magazine.

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Was awarded the Padma Bhushan on the 15th August
since 1946.
Member of the Legislative Council of Madras State

D.Sc. (Calcutta) January, 1957.
1948; I.L.D. (Glasgow) 1951; D.Litt. (Annamalai) 1955;
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Vice-Chancellor, University of Madras
Recently conferred the D.Sc., by the University
of Calcutta during their Centenary Celebrations

FOREWORD

The Madras Medical Journal has been in existence for over fifteen years and one must regret the fact that it has had a chequered career in the past. It is proposed to rejuvenate it hereafter and it is the hope of the Editor and the Editorial staff that the Journal would hereafter be so conducted as to serve the objects the originators had in view and fill a very necessary place among the journals in this country.

The Journal is the mouthpiece of the Madras Medical Association and as one intimately associated with the fortunes of this association, its ups and downs from its small beginnings in 1914, may I appeal to all my colleagues in the service to enthusiastically support the central organisation which has striven, through good report and bad, through criticism and comment, to uphold the highest interests of the medical profession and protect the just aspirations of its members?

The Journal should command a warm corner in every member and I join in the appeal of the Editor and the Editorial board in earnestly requesting one and all to extend their hearty support and make the journal worthy of the traditions of the service reflecting the good work that the members of the service are privileged to carry on. To the medical profession in general we extend a cordial invitation to contribute to the Journal articles of scientific interest.

The Journal will strive its best to serve the cause of a noble profession and to uphold its best traditions and may its task be made easy by the willing co-operation of one and all.

A. L. MUDALIAR,

President, Madras Medical Association, 1936.

Culled from our Journal dt. April 1936, 17 year after our Ex-President, now Sir A. L. Mudaliar who continues to be a member of our association. We repeat every word of his appeal to our members' attention.

Edit. Secy.

EDITORIAL

TIME and tide for no man bide. Three years have elapsed since the last issue of the journal. It was feared that even March 1957 would come to a close before this resuscitated number could be presented to our members. It is earnestly trusted that members will bear with us this belated publication, due, of course, to circumstances beyond control. Hope is held out that further issues will be released regularly hereafter, every quarter year.

Several significant happenings during the past few years of latency may come to the minds of our members. To mention a few of them—a goodly number of the service left us to constitute a separate service association with the advent of the reorganisation of the States.

The bi-centenary of the Madras General Hospital was celebrated with great eclat and particular tributes were paid to the memory of late Col. Donovan who was in the service of the State and who is remembered for his teaching, for the discovery with his co-worker, Leishman, of the L.D. body and for describing the *Donovania Granulomatis*, the causative agent of Granuloma Venereum, in 1905.

Changes in the Health Ministry, the Secretariate, the Directorate of Medical Services and among the Deans of the State Medical Colleges are still afresh. The service

ANNOUNCEMENT

Members are informed that a few pages of the Journal will in future be set apart for “**SERVICE PROBLEMS**”. The names of contributors wherever necessary will be kept confidential.

Contributions by way of articles, advertisements, clinical reports, letters to editor etc. will be received by the Editorial Secretary for the next issue of our journal.

Editorial Secretary,

M. M. A.

owes a deep debt of gratitude to the honoured officers who have held their posts with distinction and helped the service to carry through.

The excellence of work turned out in the State Medical Colleges had its recognition and three departments *viz.*, Anatomy, Obstetrics and Gynaecology, and V. D. Departments were upgraded with distinguished members of the service as Directors. Paediatrics and Radiology departments are about to be upgraded.

Several young members of the service went abroad on a visit to different colleges and hospitals in foreign lands recently. Many of them have returned, others are yet to come while a few more are expecting to leave shortly. To all these our best wishes for safe journey to and fro, a successful study visit abroad and a warm welcome on their return home.

The periodic institution of refresher courses in the different districts of the State by the service members has kept the different ranks of the profession well informed of the fundamentals and the latest additions to their knowledge of diseases and disorders of medical interest.

Clinical meetings, clinicopathological conferences and symposia in the different state hospitals have played the role in keeping individual groups of the service in the various parts of the State alert on the recent advances in medical subjects.

A Dental College within the General Hospital campus has come up as if by a magic touch; a precious gift in the form of a mobile Dental Clinic, very kindly presented by the Czechoslovakian Government is an asset of importance.

Members of the medical service alongside others of the profession throughout Tamil Nad played their part during the Centenary Celebrations of the University of Madras. Our revered Vice-Chancellor Dr. A. Lakshmanaswami Mudaliar spared no pains to make the Madras University Centenary an epochal event. Madras seemed a temporary paradise. We are proud to record also that the Doctor of Science was conferred on him by the University of Calcutta recently. Honour was done to one of the oldest members of the service when the degree of D.Sc., was conferred on Dr. M. R. Guruswamy Mudaliar.

A few changes have occurred in teaching. A four and half year course has been adopted in the medical colleges of the State. Those of the final successful entrants have to serve for a full period of one year in different district headquarter hospitals of the State before they could be permitted to practice. Social Medicine introduced in the medical curriculum is an addition worth mentioning.

While we look back with happiness over the past happenings we cannot but feel disturbed over the severe losses the service has sustained in the sad demise of Drs. Muthiah and Dhairyam.

The future is promising. Hard work, individual and collective effort, co-operation and co-ordination are vital to carry through the multiple schemes envisaged in the second Five Year Plan.

Finally, if we do not pay our special mention to that man, who had been dreaming and planning every single detail of this journal for months ahead, and the one who silently but solidly worked from the first scratch to the finish, we shall certainly justify ourselves for the criticism that 'Success has blinded us'—we mean our young enthusiast Dr. N. B. Janardhanan.

P. N. Rangiah.

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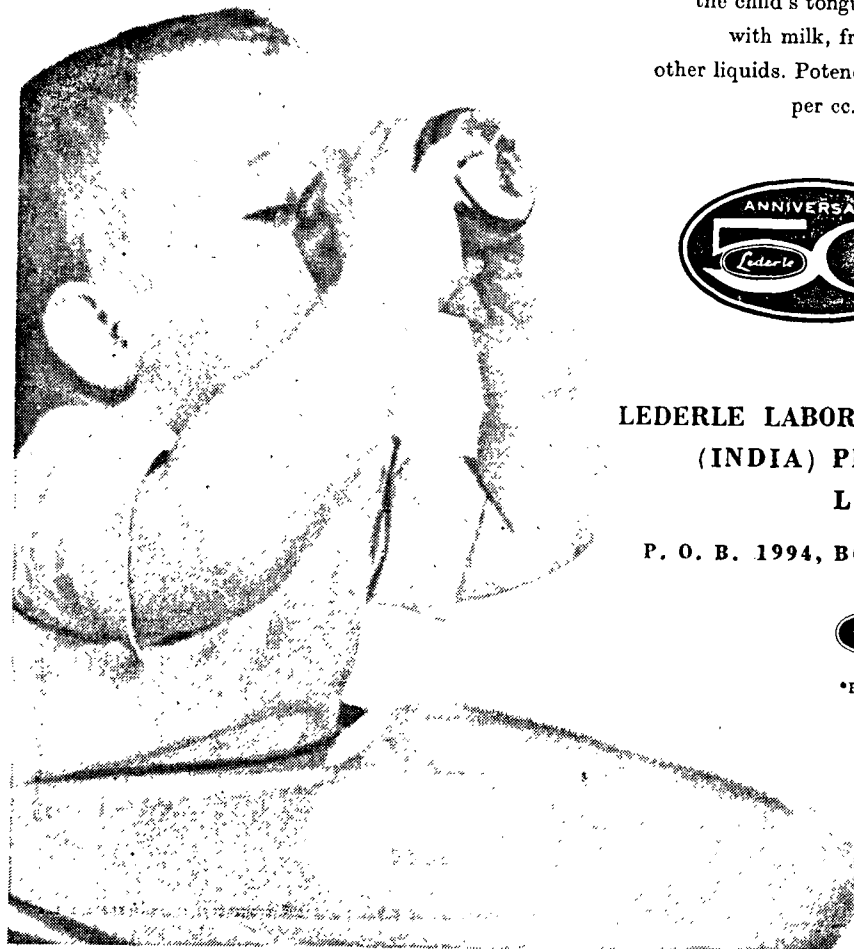
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Medical Aspects of Amoebiasis

Dr. R. SUBRAMANIAM*

B.SC., M.D., M.R.C.P. (LON.)

Amoebiasis is due to infection with *Endamoeba Histolytica*. The clinical manifestations of this are protean. The disease is worldwide, though it is more common in tropical countries. The disease is transmitted from person to person by infected people handling the foods, by fly contamination and by vegetables which are contaminated by soil pollution, being consumed without proper cleansing. Of these, the fly contamination plays the most important part. Next is food handler. Several members in the family may be infected by a cyst passing carrier.

Amoebic infection is more common in men and incidentally less in women of all ages. It is still less common in children. The reason why this disease predominantly occurs in men is not known for certainty.

The portal of entry of the amoebic infection is through the gastro-intestinal tract, by the amoebic cysts. After a variable time, the infection is manifested. The cyst wall is dissolved by the gastric juice and from each cyst that enters the body, four adult forms emerge.

The amoebae do not produce any lesion till they come to the large intestine. In the large intestine, the areas that are particularly involved are the caecum and the sigmoid colon. The

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transverse colon is seldom involved. The involvement of the caecum may affect the appendix. This is responsible for one of the leading manifestations of the amoebiasis, being often erroneously diagnosed as appendicitis or tuberculosis of the caecum. The amoeba from the colon may enter the portal vein and be responsible for another of the important clinical manifestations, amoebiasis of the liver, *i.e.* hepatitis or liver abscess.

Individuals infected with amoebic infection are divided into 5 groups.

Group 1.—The so-called healthy carriers, *i.e.* persons without any obvious symptoms but in whom, in the course of routine motion examination, either the vegetative or the cystic form of amoeba is seen.

Group 2.—Cases with indefinite symptoms and symptoms referable to either the gastro-intestinal or the nervous system.

Group 3.—are cases of recurrent attacks of diarrhoea.

Group 4.—are either chronic or acute amoebic dysentery.

Group 5.—are cases of extra intestinal amoebic infection like amoebic abscess of the liver.

Even though in group 1 they are passing cysts without any symptoms, it cannot be said that they are completely healthy. I had a case in which the man came in for fever, cough and expectoration. Clinical and radiological examination were in favour of infection of the upper lobe of the lungs. The infection was from the liver and this was evident from the X-rays. The motion of this man showed amoebic infection and sigmoidoscopic examination revealed multiple amoebic ulcers. This man denied having had any history of dysentery at any time. The lung condition cleared with anti-amoebic treatment. This case, like many other cases, is illustrative of latent amoebic infection.

Group 1.—Where cysts are passing without any symptoms: Even when a case is spotted in the course of routine examination I am strongly in favour of treating the case.

Group 2.—Here the patient's complaints are misleading. They are likely to give a history like that of a case of peptic ulcer, intestinal colic, pain in the appendicular region or flatulence. They are likely to be missed unless the clinician is amoeba conscious. Sometimes constipation may be a prominent symptom in this case. Loss of weight may occur in these cases as also low fever.

Nervous symptoms may be repeated attacks of headache or insomnia with lack of memory. The symptoms are so vague and indefinite with regard to the nervous system, that one is tempted to think of neurosis rather than of an organic nervous disease.

Group 3.—These cases have been diagnosed quite often as Tuberculous enteritis. This is particularly likely to occur when the patient is passing a number of loose motions with low fever and is suffering from abdominal pain and loss of weight.

A Routine X-Ray Examination of the Chest.—Though in most cases the lungs are clear even though the liver is not grossly enlarged, in many of them, there is a slight degree of upward enlargement of the liver, and on screening, there is considerable restriction of the movement of the dome of the diaphragm on the right side. One and the only way by which the lesions can be made out is by routine motion examination. If 2 or 3 ordinary motion examinations fail to reveal amoeba, a saline purgative may be given and the liquid motion examined. I have had a high percentage of cases in which this procedure has given positive results. If this also is negative for amoebic infections, sigmoidoscopy may be done by some one who is well versed with the procedure of sigmoidoscopy. Amoebic ulcers may be seen in sigmoidoscopy in more than 50% of cases. It is

advisable to take a scraping from the base of the ulcer and not be satisfied with just the appearance of the ulcer seen through the sigmoidoscope.

Group 4.—These are the amoebic dysentery cases. They form only a very small percentage of the total number of amoebic dysentery cases. These patients complain of passing blood and mucus. The number of motions is not many. Generally it does not exceed 5 or 6 times per day. An amoebic ulcer when it comes to be situated in the pelvi-rectal junction, the number of motions may be very many and the appearance may be exactly like that of a bacillary dysentery motion. Here, if the ordinary motion examination fails to reveal the presence of amoeba, I suggest that rectal examination be done and the mucus on the examining finger be examined for the amoeba. The onset of amoebic dysentery is always insidious. Occasionally it can be sudden. Low fever might occur. At the onset, rigor may also occur. Generally tenesmus does not occur in the case of amoebic dysentery as in the case of bacillary dysentery. But tenesmus cannot be considered as a factor for ruling out amoebic infection. If dysentery is not promptly tackled, it is capable of repeated relapses. In the first instance itself in some cases, well marked anaemia may occur and the man may present himself as a case of anaemia. Extreme exhaustion may occur in some cases in the course of dysentery and will be an important factor in causing the death of the patient.

Group 5.—The extra intestinal complications of amoebiasis: Most important is the liver abscess. In this hospital, the liver abscess is the most important complication of amoebiasis. If primary treatment is adequate, then the incidence of the abscess will be reduced to nil. In this hospital, during the course of the past few years, there has been a progressive fall in the incidence of the abscess of the liver. I feel it may partly be due to the fact that the patients are having more faith in the hospital line of treatment and the strict adherence to the advice given to them, and partly due to introduction of total prohibition.

Though prohibition may not be a cent per cent success still the introduction of prohibition has meant that alcohol is not available for the poor classes and they refrain from it.

There are two stages in the development of liver abscess, the hepatitis stage and the abscess stage. The hepatitis has again two phases—the acute phase and the chronic phase. In the acute stage of the hepatitis, the liver is diffusely invaded by the amoeba while the liver cells are healthy as in a non-alcoholic. Hepatitis clears without residual symptoms. If for some reason or other, the liver is in a devitalised state as in the case of an alcohol addict or an under-nourished individual, the amoeba is likely to bring about necrosis of the liver cells and form abscess.

In the acute stage, *i.e.* the hepatitis stage, the patient may have high fever and an enlarged tender liver with usually a history of diarrhoea or dysentery some time ago. The absence of the history of dysentery or diarrhoea should never be taken as being against the diagnosis of amoebic hepatitis. The temperature chart may be intermittent or remittent in type with relatively fast pulse. Profuse perspiration occurs whenever the patient sleeps. Examination shows the enlargement of the liver both upward and downward. In many cases a skiagram of the chest shows upward enlargement of the liver and screening shows immobility of the right dome of the diaphragm. Cases of hepatitis have occurred in my ward itself, where there was no upward enlargement of the diaphragm, nor was there any restriction in the movement of the diaphragm on the right side. So, these two signs, when present, are a very valuable confirmatory feature, but their absence does not eliminate the diagnosis. In a small percentage of cases, the adjacent lung may be involved. The bowels may be thickened particularly in the caecum, and ascending colon and rarely the transverse colon and still more rarely the sigmoid or descending colon. During the stage of hepatitis the right side of the dome of the diaphragm is markedly

elevated. Leucocyte count may vary from 10 to 15 thousand per cmm. If aspiration of the liver at this stage is done, blood only is drawn.

In the chronic stage of hepatitis, the diagnosis is not quite so easy. The liver in this condition is not usually tender. There may be a history of diarrhoea or dysentery with an enlarged liver. Motion examination reveals the presence of amoeba or cysts. Leucocyte count is normal or slightly increased. Emaciation may be prominent in these cases. Treatment at this stage of hepatitis is comparatively easy and effective. Emetine 1 gr. I.M. daily for six days brings down the temperature rapidly. The leucocytosis is also brought down but the pain may persist. Much better results are achieved by administering chloroquin compounds like Resochin or Camoquin.

Liver Abscess or Suppurative Hepatitis.—This is a later stage of hepatitis. The pus is usually sterile unless secondary infection has occurred. The pre-disposing cause in the liver abscess seems to be alcohol and to a minor extent dietetic errors like low protein consumption or latent syphilitic infection. The incidence of liver abscess in non-alcoholics is almost nil and the incidence in women and children is a medical curiosity. In the last 10 years, I have had only 3 cases of liver abscess in women. Of the three, in one case when I asked her for a history of alcoholic intake, she actually asked me to supply her a pot of toddy for ready consumption.

The symptoms in cases of liver abscess are very vague and indefinite. Pain may be complained of over the right side of chest, over the liver area, or over the precordium or over the right shoulder. Pain is fairly severe with fever coming on in the evenings. At the onset of fever there may be rigor. There may or may not be further rigors but occasionally daily rigor may occur. Clinical examination shows a bulge on the right side of the chest over the liver area and also over the right hypochondrium. The liver is enlarged and tender. The enlarged

liver is smooth and not nodular. It may be misdiagnosed as carcinoma of the liver. There is often an associated pneumonitis on the right side. There may also occur pleural effusion on the right side. This pleural effusion may be clear and straw-coloured in which case the effusion is due to irritation of the pleura. The pleural effusion may be chocolate coloured pus in which case it is due to rupture of the liver abscess into the pleural cavity. If the lung is adherent to the pleura and the diaphragm, then the pus is likely to establish a bronchobiliary fistula.

The abscess may point in various directions either towards the anterior abdominal wall or the right side of the chest. The abscess may also rupture and find its way out; it may rupture into the pleural cavity, simulating pleural effusion. It may rupture into the anterior abdominal wall. It may rupture either into the stomach, duodenum or colon. It may rupture outside through the chest wall. In one of our cases it appeared through the rectus sheath.

Jaundice is an uncommon feature in the case of the liver abscess but it might occasionally complicate the liver abscess. In one of our cases, the jaundice showed unmistakable relationship to the liver abscess. It was aspirated twice and every time he was aspirated, the jaundice cleared. In another case, an elderly man of 55 was found to be toxic and deeply jaundiced with a very big liver which was nodular and hard to feel. In view of the general condition of the patient, it was thought to be a case of primary carcinoma of the liver. He died within a few days after admission and in this case the autopsy showed a liver abscess and the nodularity was due to the abscess wall bulging through the liver. In tropical countries an enlarged liver with fever and jaundice means the possibility of a liver abscess.

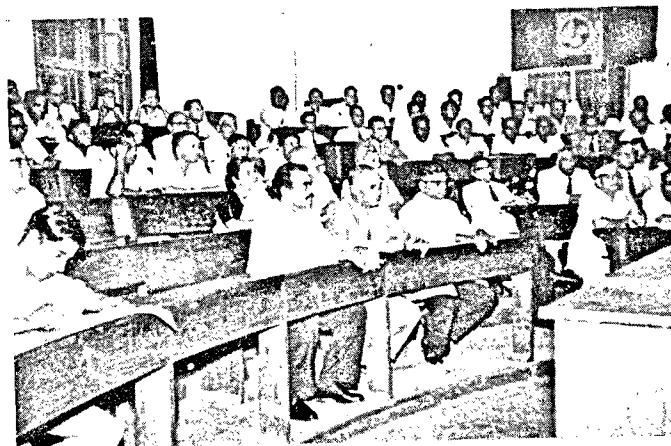
Another unusual manifestation is liver abscess simulating a case of congestive heart failure. In one of my cases the patient had oedema of legs and arms with slight puffiness of the face. He was also a subject of jaundice and the abscess was pointing in the anterior abdominal wall. It looked as though the abscess

may burst any minute. He was put on emetine and the very next day the abscess was incised and drained. The operation had to be done as an emergency without waiting for the medical treatment to be carried out with the result that the aspiration had to be done 2 or 3 times and convalescence was prolonged.

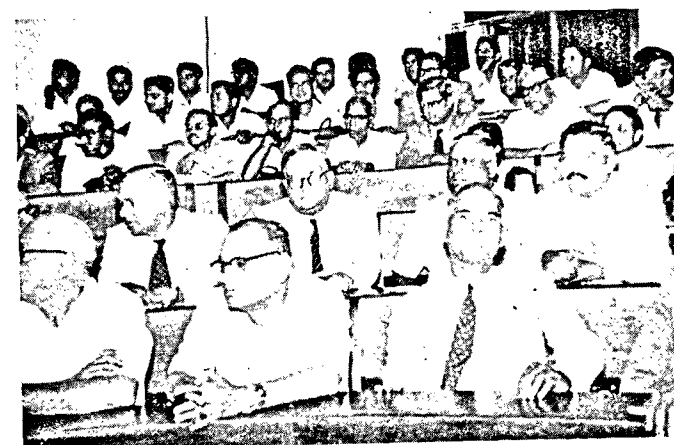
The abscess may burst into the pericardium. I had one such case. The complication occurred in a middle-aged man. When first seen in the out patient department he was in a mild state of shock with thready pulse and cold sweat. He complained of severe pain in the epigastric region. Examination showed liver enlargement of 2 fingers breadth below the costal margin. I admitted this case as hepatitis, but soon after admission he got over the state of shock and was quite alright and gave a history of periodic attacks of pain coming on two or three hours after food and being relieved by taking a little food. In view of this history, the possibility of a peptic ulcer was visualised. F. T. M. and Ba. meal were done, but they failed to confirm the clinical suspicion but we thought that it might be a case of gastric ulcer with perigastric adhesions. By this time, again for no reason, while he was at perfect rest, he went into a mild state of shock. This only further favoured my suspicion of perigastric adhesion causing sympathetic disturbance and we sought surgical help. The surgeon took him over and put him on emetine I. M. for 3 days. After the three injections, the patient again developed a state of shock. This time it ended fatally. Autopsy revealed a left lobe liver abscess that had burst into the pericardium. In this case, the misleading features were symptoms simulating duodenal ulcer and the state of shock that had occurred from which he recovered in a short time.

In the case of chronic abscess of the liver, the symptoms may not be so outspoken as in the case of acute abscess of the liver. In one case, patient came with a huge big liver, with a liver almost reaching the symphysis pubis. Except for discomfort, he did not have leucocytosis and gave no history of diarrhoea or dysentery. Laparotomy was done. On incising the liver there was pus. The amount of pus was 7-1/2 pints. The scraping from

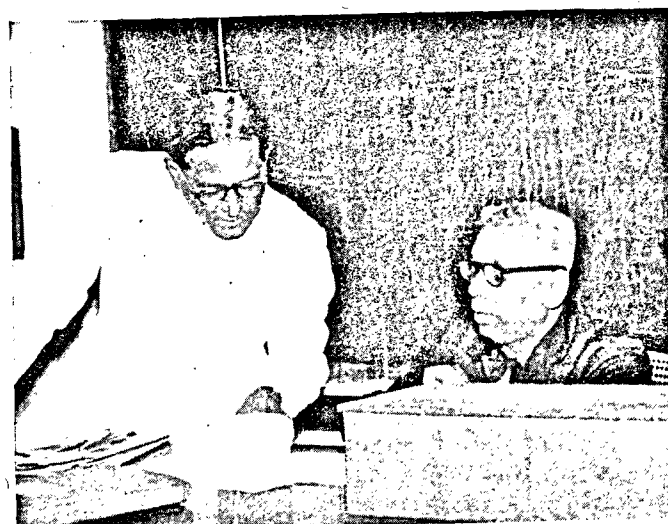
GENERAL BODY MEETING 1956



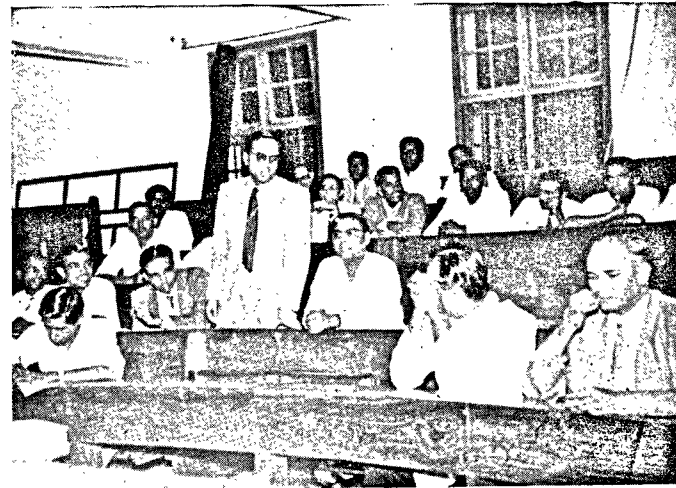
A view of the General Body meeting 1956



Another view of General Body meeting 1956



Secretary and President at the General Body meeting 1956



Dr. B. Ramamurthy discussing
an important issue at the
General Body meeting

the wall showed motile amoeba. This patient was put on emetine. In this case complete recovery occurred and the man left the hospital without any enlargement of the liver at the end of the month.

The next important complication is amoebic infection in the lungs. In most cases, the lungs are invaded through the liver. This is called secondary pulmonary amoebiasis. In a small percentage of cases, the lung may be invaded through the blood stream without the liver being affected. These are called primary pulmonary amoebiasis. With regard to primary pulmonary amoebiasis, it may occur either in the left or in the right lung, upper or lower lobe. But the secondary pulmonary amoebiasis invariably occurs along the right base of the lung. Occasionally the left base of the lung may be involved through the left lobe of the liver. The pulmonary infection may be like that of eosinophilic lung. The skiagram of the chest shows diffuse lesion. Patient complains of acute dry cough. Examination of sputum is essentially negative. It is by the motion examination that these cases are likely to be spotted and anti-amoebic treatment yields very good results.

The lung may be involved in various ways. It may simulate neoplasm of the lung and the patient may give a history of repeated attack of amoebic dysentery. In these cases, bronchoscopic examination does not reveal any change in the bronchi. He may have broncho-biliary fistula. In a small percentage of cases, the man may be admitted as a case of pleural effusion and only when you aspirate the contents of the pleural cavity, the amoebic nature of the condition is made out by aspirating chocolate coloured pus.

A few cases of cutaneous amoebiasis have been treated in this hospital. In 2 of my cases it was around the anal margin and the condition was thought to be in the 1st case as syphilitic condyloma and in the 2nd case as carcinoma of the rectum, invading the adjacent skin. In all these complications of amoebiasis methods of diagnosis are by X-rays, repeated motion

Members discussing after the
General Body meeting



Members waiting for the annual
dinner after the General Body
meeting. Chief Guest
Dr. P. V. Cherian is seated
chatting with senior members

examination, sigmoidoscopic examination, screening of the chest for limitation of the movement of the right dome of the diaphragm and motion culture by one of the standard methods if necessary. It is said that culture gives the highest rate of positive diagnosis.

Differential Diagnosis.—Quite a number of conditions may be mistaken for liver abscess and the liver abscess itself may be mistaken for conditions like gumma of the liver, carcinoma of the liver, etc. The commonest conditions to be thought of are pneumonia right base, pleural effusion right base, tuberculous peritonitis, peptic ulcer, typhoid and other long continued fevers, gumma of the liver, hydatid of the liver, peri-hepatitis occurring in Kala-Azar and Malaria, cholecystitis, both acute and chronic, adenocarcinoma of the gall bladder and peri-nephric abscess. With regard to treatment of amoebic infection, the primary infection must be treated thoroughly. A good procedure is to give emetine I. M. 1 gr. for 7 days, followed by Emetine Bismuth Iodide (E. B. I.) one gr. in the night on the first night and if there is no intolerance to give 2 grains thereafter every night for 12 nights. Emetine bismuth iodide is preferably crushed, put in butter and then given. During the time when the patient is given Emetine bismuth iodide, he is given retention enema of chiniofon. To start with 1/2% solution 6 ounces. Every night the strength of the solution is increased by 1/2% upto 2-1/2%. The retention enema is given after a bowel wash, with soda bicarb solution 1 dram to 1 pint of water. Soda bicarb solution is used to dissolve the mucus in the large bowel. Retention enema is given at night. After E. B. I. therapy, start the patients on Iodo-oxyquinoline compounds like Enteroquinol. This is marketed as 0.25 gm. tablets. The dosage advocated by the manufacturers is much higher than what the patients tolerate. I only prescribe one tablet 3 times a day, for 20 days. This is then followed by Carbarsone tablets, one pill twice a day after food for 20 days. The point to bear in mind is the possibility of the occurrence of arsenical intolerance or toxic symptoms and at the earliest appearance of skin rash or intolerance, the drug should be stopped.

In such individuals exfoliative dermatitis has occurred. This is followed by chloroquin 0.25 gm., 4 tablets a day for 4 days and follow it up with 1 pill twice a day for 14 days. The chloroquin is particularly valuable for the treatment of amoebic abscesses of the liver and pulmonary amoebiasis. I prefer to follow this chloroquin by another arsenical compound, namely Viasept. This is combination of bismuth and arsenic and gives very satisfactory results. These are given as tablets, 1 tablet, thrice a day after food for 8 days. For 8 days no treatment is given. Then the treatment is repeated for another 8 days, 48 tablets constitute a course. Treated this way, we get very satisfactory results in most of the cases of amoebic infection. The treatment lasts for 2 months and even then relapse can and may occur unless the habits of the patient are corrected. With regard to drugs like Terramycin, achromycin and other broad-spectrum antibiotics, they are practically useless in the extracolonic amoebiasis. Their action even in regard to the intestinal tract seems to be indirect in that they kill the bacteria on which the amoeba thrives. They are however valuable in the treatment of primary amoebic dysentery if the general condition of the patient is poor and emetine cannot be given safely.

In all cases of suspected amoebic abscess of the liver, irrespective of the clinical improvement of the case with medical treatment, I advocate putting a needle into the liver and aspirating the same for pus. If pus is struck, aspiration should be proceeded with. Pulmonary lesions even though treated adequately take a long time to clear completely.

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Effect of Histamine Drip in Hemiplegia

Dr. K. S. JANAKARATHNAM*

M.B., B.S.

In modern times, as the longevity of man is assured due to preventive medicine, diseases of the blood vessels are becoming more frequent.

The main affections of the blood vessels of the brain are haemorrhage, thrombosis and embolism. Arteriosclerosis with or without hypertension is the most common disease of the vessels causing haemorrhage. The same arteriosclerotic process in the walls of the vessels, which interferes with the free flow of the blood tends to cause clotting giving cerebral thrombosis. The next frequent cause of thrombosis is syphilitic disease of the vessels. Acute or chronic inflammatory reaction around blood vessels such as occurs in chronic meningitis or encephalitis is rare cause a of cerebral thrombosis. Cerebral embolism is most commonly associated with diseases of heart but may occur with thrombosis or suppurative processes in other parts of the body. Fat embolism is associated with fractures of long bones.

The result of any of the three affections in the majority of the cases is paralysis, the degree of paralysis varying according to the vessels involved.

The treatment of these cerebral vascular accidents is divided into three parts ;

First, the treatment in the immediate period after the onset which is mainly devoted to saving the life of the patient ;

Second, the treatment to minimise the lesion by reducing the size of the infarction and improving the blood supply to the infarcted area ; and

*Post-Graduate Student—Dr. R. Subramaniam's unit.

Third, the treatment of the residual defects by suitable methods like physiotherapy.

The purpose of this article is to give out the results we had in our unit, in carrying out the second part of the treatment by giving Histamine with nicotinic acid and vitamin C in glucose saline drip.

Histamine produces marked dilatation of the capillaries particularly the cerebral capillaries. Nicotinic acid is also a general vasodilator and it is given to sustain the vasodilatation produced by histamine since histamine is destroyed very quickly in the system. Vitamin C is added because of its action on the intercellular cement substance which prevents the passage of fluid from the dilated capillaries into the tissues causing oedema of the tissues, which is not desirable.

In the year 1955, and the first 6 months of 1956, we had 81 cases of Hemiplegia admitted in our unit.

Out of these, 9 cases did not have the histamine drips and 10 cases had incomplete treatment of two or three drips, the 10 cases had incomplete treatment of two or three drips, the reasons being either 'discharge against medical advice' or death of the patient before anything could be done.

All the remaining 62 cases had a complete course of 12 histamine drips consisting of:

Histamine phosphate	...	0.5 mgm.
Nicotinic acid	...	300 mgm.
Vitamin C	...	500 mgm.
5% Glucose saline or solution	...	300 cc.

and given in about 2½ hours.

The dose of histamine was increased to 1 mg. after the first drip and maintained for the rest of the course. The patients had suitable treatment for the etiological factors wherever necessary.

These 62 cases classified according to etiology consisted of 36 cases of hypertension, 6 cases of syphilis, 2 cases of tuberculous

meningitis, 2 cases of cardiac valvular lesions (one mitral stenosis and one aortic regurgitation) and 16 cases where the etiology was not definite.

The results of treatment were classified as good in the cases where the patient was able to walk without support and use his arm freely. If the patient was able to stand and walk with support the result was classified as fair. The cases where the patient was not able to stand but was able to move the limbs were classified under poor results. The remaining cases in which the patient was not able to move the limbs were classified as no improvement.

Classified as above, the 62 cases had 27 good, 19 fair, 9 poor and 7 no improvement, the percentage being 43.5% 30.5%, 14.5% and 11.5% respectively.

Classified according to the etiological factors, the results were as follows:

Etiology		Total	Good results	Fair	Poor	No improvement
1.	Hypertension ...	36	16	12	4	4
2.	Syphilis ...	6	1	3	2	—
3.	T. B. Meningitis ...	2	—	—	1	—
4.	Valvular lesions ...	2	2	—	—	—
5.	Indefinite ...	16	8	4	2	2

It can be seen from the above results that histamine drip gives good results in 43.5% of the cases and fair results in 30.5% of the cases which combined together form nearly 2/3 of the total number of cases.

Further the Histamine drip seems to give particularly good results in hypertension cases and valvular diseases of the heart which develop hemiplegia. The results in syphilitic and tuberculous meningitis are not good.

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Use of Hyaluronidase by Iontophoresis

In the treatment of Filarial Lymphedema

Dr. K. M. SYED MOHAMED*

M.B., B.S.

Aim.—Among the various manifestations of filarial disease, scrotal swellings respond appreciably to anti-filarial drugs, particularly *Florocid*. In some cases of filarial legs, especially, long-standing cases, the swelling is brought down to some extent only, by anti-filarial drugs. In these cases, subcutaneous injection of Hyaluronidase in several places in a selected area is resorted to. But this is a very painful procedure. Hence the new method of treatment (to reduce the swelling in chronic cases)—*Iontophoresis*—a sort of ionisation is started on an experimental basis.

Theory.—Hyaluronidase is present in sperm, bacteria and tissue cells. It hydrolyses hyaluronic acid present in the interstitial tissue. Hyaluronidase reduces the viscosity of the intercellular cement—thereby more fluid is diffused and absorbed in the general circulation.

Using electrophoretic techniques that at a P. H. of 5.2 Hyaluronidase carries a positive electrical charge and M. G. rates from the anode to the cathode. Rate of migration was more rapid at a P. H. of 5.4. Hyaluronidase was dissolved in 0.1 M. acetate Buffer solution. P. H. 5.4 which has the following formula :—

Sod. acetate	...	11.42 gm.
Glacial Acetic Acid	...	0.923 c.c.
Distilled water	...	1000 c.c.

*Research Assistant, Dr. R. Subramaniam's unit.

Method.—The entire extremity, to be treated was wrapped with diaper cloth soaked in the solution which contains $1\frac{1}{2}$ ampoules of Hyaluronidase—(1500 Berger units) and the Buffer solution mentioned above. A flexible block chain electrode was spiral-wrapped around the cloth, and the entire preparation was wrapped with a wet-cotton elastic bandage. This electrode was coupled to the Positive Pole of a 45-volt dry battery galvanic apparatus. The negative pole was coupled to a wet asbestos pad, back electrode kept under the other limb, and the current was gradually increased to 20 M.A. and these maintained for 20—30 minutes. At the end of this procedure, the limb is tightly bandaged with elasto-crepe bandage, to be removed after 12 hours. Treatment like this is to be given twice a week, till 30 such settings are given.

At the start of this study 1500 Berger units of Hyaluronidase were added to 1 litre of acetate Buffer solution, later reduced to 500-100 Berger units.

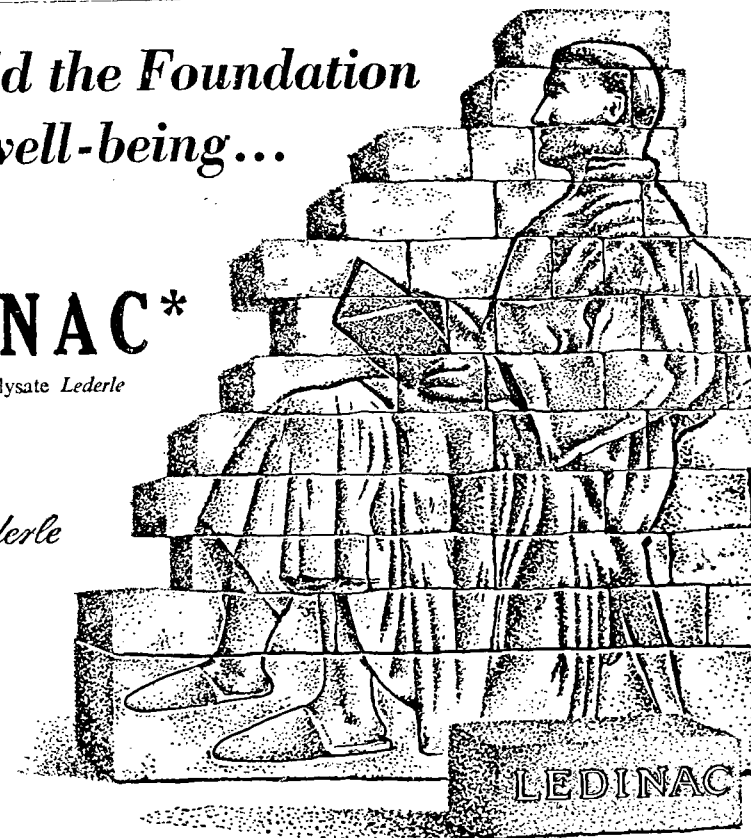
Two patients were started with this treatment, but one patient discontinued in the middle, and another patient is getting the treatment still, with encouraging result. One more patient is getting the treatment of Iontophoresis—results of these are expected with hopes.

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Nitrogen Mustard in the treatment of Nephritis and Nephrosis

Dr. (Miss) M. SHARDA MENON, M.D.*

Nitrogen mustards, first introduced into Medicine during 1914-18 war (Mustard gas), claimed medical attention due to their devastating effect on the skin, eyes and respiratory tract. Krumbhar and Krumbhar in 1918 discovered that mustard gas poisoning produced serious systemic intoxication when they observed bone marrow aplasia, dissolution of lymphoid tissue, and ulceration of the gastro-intestinal tract in cases that came to autopsy. Goodman, Gilman and Dougherty later observed extensive regression of established tumours with doses of nitrogen mustard which could be tolerated by the host. The first clinical trial in Yale University in 1942 in a moribund patient produced remission dramatic enough to warrant further trials with the drug in cases of malignancy.

Chasis et al (1949) later used nitrogen mustard in treating patient with glomerulonephritis on the assumption that this disease was caused by an antigen—antibody reaction, and the fact that nitrogen mustard inhibits such reactions. Baldwin et al (1955) record temporary remissions in patients with glomerulonephritis treated with this drug. 15 cases of disseminated lupus erythematosus with renal involvement were treated with nitrogen mustard; 13 showed appreciable improvement and the remaining two that were not benefited had no oedema (Dubois, 1954).

Nephrosis due to other causes can also be treated effectively by nitrogen mustard (Taylor et al 1950). Davies (1956) documents as the first report in British literature, a case of disseminated

*Assistant, Stanley Medical College, Madras-1

lupus erythematosus with renal involvement where cortisone produced some mental changes and only slight improvement, and nitrogen mustard produced dramatic effects.

We record four cases treated with nitrogen mustard, two showing remarkable improvement, while the other two showed temporary remissions only.

Case No. 1.—A man of 35 was admitted in December 1955 with general anasarca of 2 weeks duration. There was no previous history of similar episodes. He had no head-ache, nor other symptoms. On examination, temperature was normal, pulse 80/min., B. P. 150/100. There was oedema all over the body including the face. Fundi were normal. Urine showed albumin and all kinds of casts. Blood urea was slightly raised (50 mgm%). Serum proteins were low. A diagnosis of acute or chronic nephritis was made and he was maintained on a salt free diet. Aminophylline intravenously and oral diuretics were given with little improvement. Nitrogen mustard was started in doses of 2.5 mgm. in 20 c.c. glucose intravenously. Urine out-put was recorded daily. No appreciable diuresis was observed during the first few days but between the 5th and 7th day large quantities of urine were passed. Three such injections at weekly intervals produced complete remission. B. P. came down to 130/90. Urine was clearer and showed less casts, and oedema was completely controlled when he was discharged one month later.

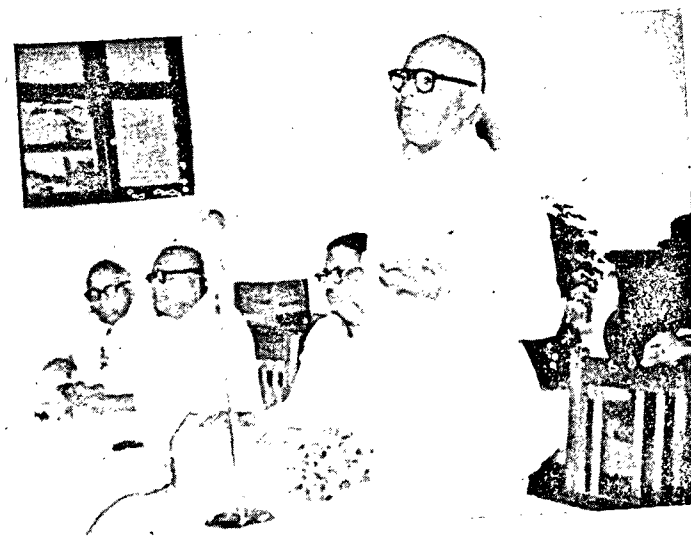
Case No. 2.—35 year old male was admitted in August 1956 for massive oedema. Clinical examination revealed nothing abnormal except for general oedema. There was no history of similar attacks previously, no history of any infection. The onset was gradual. Fundus was normal, urine contained heavy deposits of albumin with fatty casts, blood proteins were low and cholesterol high. Nephrosis was diagnosed and the patient was given nitrogen-mustard 2.5 mgm. I. V. in 20 c.c. glucose at weekly intervals. Three injections completely controlled the oedema which did not recur (3 months follow up). Urine was free of albumin when he was discharged at the end of a month.



Some senior members enjoying the annual dinner



Bird's Eye View of the annual dinner 1956



Dr. P. V. Cherian delivering his oration



Members listening to post
circulation 1956



Annual Dinner 1956



Another view, annual dinner
1956

Nitrogen Mustard in the treatment of Nephritis and Nephrosis 21

Case No. 3.—49 year old male was admitted in March 1956 with a complaint of general anasarca, scanty micturition and dyspnoea of three months' duration. No history of similar attacks previously could be obtained. The onset was fairly sudden after taking a purgative, with swelling of the ankle and foot, oedema of the face and complete anasarca in three days time. On examination there was oedema all over the body with ascites. Heart and lungs were normal. B.P. 175/100. Fundus was normal, urine contained albumin and casts of all varieties. Blood urea was 32 mgm%. The daily urine output was about 10-15 oz. and was not improved with aminophylline and diuretics. Nitrogen mustard was given in 2.5 mgm. doses in 20 c.c. glucose intravenously. Urine output was doubled in a week's time but oliguria, set in soon enough. 4 injections were given but the response to the last one was poor. Davies article suggested that 10 mgm. of the drug be given in 500 c.c. 5% dextrose and this was administered but there was no appreciable diuresis after the heavier dose either. The injections were discontinued. The patient was discharged in June not much relieved, but none the worse.

Case No. 4.—24 year old male was admitted with anasarca of gradual onset of 2 months duration. On examination heart and lungs were normal. Fundi were normal. B.P. was 150/100. Urine contained albumin and casts. Blood urea was 34 mgm%. Salt free diet and diuretics did not control the oedema. Nitrogen mustard was started and there was remarkable diuresis and weight reduction each time the injection was given. He had six injections at weekly intervals but the remissions were very temporary. He was discharged in the same condition.

DISCUSSION

Of the four cases recorded above, three were clearly of glomerulonephritis, and one of nephrosis. It is quite evident that the improvement in the nephrotic syndrome was complete and permanent as far as we have followed the case. Of the other three only one patient was definitely benefited, the other two showing temporary remissions with certainly no untoward reactions.

These cases are being recorded to show the remarkable effect of Nitrogen mustard in the oedematous stage of nephritis, and the diuretic effect of the drug. Dubois (1954) treated oedematous and dry nephrotic cases with nitrogen mustard and noted considerable benefit in those complicated by oedema and no effect at all in the dry states.

Phillips et al (1948) applied nitrogen-mustard to the shaved skin of dogs and observed that the excretion of sodium and chloride were increased. 10% or more extra cellular sodium and more of extra cellular chloride were lost through the kidney and intestines. Loss is more with the methyl chloroethyl ethylene ammonium salt than with the tri-chlor ethyl ethylene salt.

Loss of extra-cellular and intra cellular electrolyte and increased catabolism occur as a result of intoxication with nitrogen mustard and death may follow due to inability to retain extra cellular electrolyte.

Renal insufficiency in the re-absorption of sodium and chloride is responsible for extra cellular loss which is similar to that encountered in adrenal insufficiency. Nitrogen mustard produces a functional disturbance in the kidney of such magnitude as to interfere with haemostasis. Nitrogen mustard has a cyto-toxic action and this is probably due to its action on enzyme systems or on the nucleic acids. Mitosis and cell division are affected in all germinal tissues, the inhibition occurring in the pre-mitotic phase.

Loss of the intra-cellular electrolyte potassium is attributed to the increased catabolism of lymphoid and myeloid tissues which effect is made use of in the treatment of malignancy. Potassium, phosphorus, and nitrogen are excreted in excess. Increased cellular catabolism is again probably responsible.

Nitrogen mustard is indicated only in selected cases of wet nephrosis and acute nephritis associated with massive oedema. The loss of water and electrolyte is not followed by any metabolic disturbance. The drug is easy to administer, relatively cheap, and treatment is short - 6 injections usually sufficing. These advantages permit wider use of this drug.

The toxic effects observed are its vesicant action and local tissue necrosis when infiltration occurs during intravenous injection. Lavage with water will control the former and local injection of Thiosulphate or sodium chloride will prevent severe necrosis in the latter. Nausea and vomiting are prevented by administration of barbiturates previously. Bone marrow depression is never too severe as to warrant withdrawal of the drug and thrombocytopenia causing haemorrhages can be combated with protamine.

Dosage.—The drug is available as a gas in 10 mgm. vials. After dilution in distilled water the equivalent of 2.5 mgm. is withdrawn and diluted with 20 c.c. glucose and given intravenously, with due care to prevent extravasation. It may be injected into the tubing of a saline transfusion which has been started. This will ensure the drug entering the vein directly and there is no danger of even a drop at the end of the needle entering the tissues. Injections may be repeated once in 5-7 days.

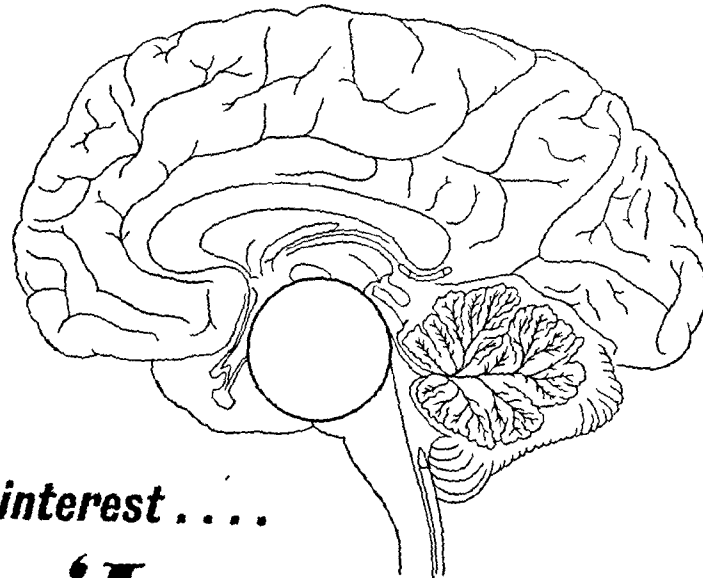
Medical literature is replete with critical and clinical studies of the use of this drug in miscellaneous diseases. Its cytotoxic action is made use of in the treatment of malignant disease and the same effect is responsible for biochemical changes which result in the diuretic effects we have recorded. While other methods have found more popularity in the treatment of nephrosis, the dramatic effect of nitrogen-mustard is certainly impressive enough to ask for further trials.

I wish to thank Dr. R. G. Krishnan, F.R.C.S., Dean, Govt. Stanley Hospital for permission to publish these reports.

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Dr. M. R. GURUSWAMY MUDALIAR

B.A., M.D., D.Sc.

Born in 1880. Had his earlier education in Bangalore. Took the Bachelor in Arts degree in the first class in 1902. Completed his medical course very successfully in the year 1909. After a short pause he entered the Madras Medical Service taking his postings in different departments of Radiology, Anatomy, Physiology, Ophthalmology, Surgery and Midwifery. With this background of training in different specialities he was elevated to the rank of Civil Surgeon and posted as Physician, Government General Hospital. In 1920 he obtained the Doctorate and became Professor of Materia Medica and later Professor of Therapeutics. He visited England in 1930. After retirement in 1938 he has continued to interest himself in medicine and to this day both the city and mofussil people, lay and medical, seek his expert advice. University of Madras has recently conferred the D.Sc. degree at a special convocation during the University Centenary Celebrations. To quote the words of Sir A. L. Mudaliar:

Dr. M. R. Guruswamy Mudaliar was the doyen of the Medical Profession in South India. He was a great physician, who had played a significant role in relieving the suffering of the people and was held in the highest esteem as a great teacher of Medicine. He was one of the first Indians to be appointed as Professor of Medicine. During his career, he had enhanced the reputation of Indian doctors in every field of activity. He was the first President of the All India Association of Physicians. He was connected with the Madras University in many capacities and rendered valuable service.

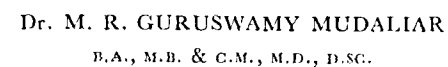
Dr. M. R. GURUSWAMY MUDALIAR

B.A., M.B. & C.M., M.D., D.Sc.

UNUSUAL interest

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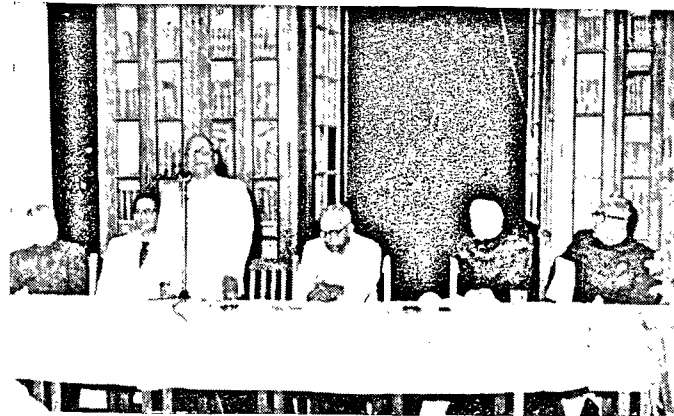
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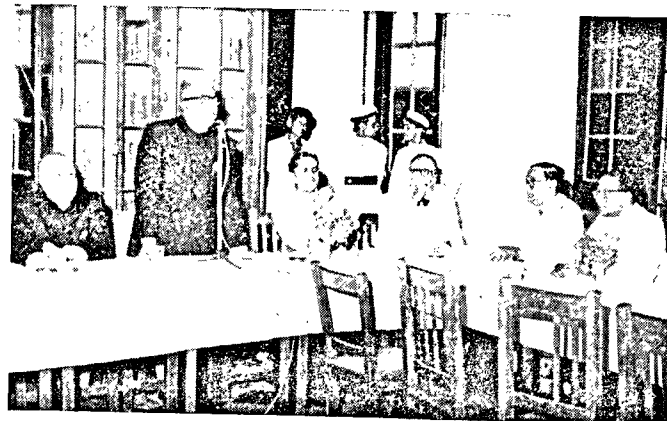
ANNUAL DINNER 1954



View of the 1954
annual dinner



Dr. C. K. Prasada Rao
delivering his oration



President
Dr. K. M. Rai's address

Dr. M. R. Guruswamy Mudaliar - "My guru"

Dr. R. SUBRAMANIAM

B.SC., M.D., M.R.C.P. (LON.)

There are occasions when an Institution honours an individual. On such occasions, people connected with the Institution feel that they are conferring the honour on the individual. It might as well be that the Institution is being honoured by the Individual, whilst accepting the honour that is conferred on him. Such an occasion was witnessed in the Madras University, during its Centenary Celebrations when it conferred the Doctorate Title on Dr. M. R. Guruswamy Mudaliar. It is very difficult for persons like me to judge and say as to who was really being honoured—The University or Dr. M. R. Guruswamy Mudaliar.

I have known him for the last quarter of a century, *i.e.* even as a student of this College, when his was a house-hold name. He had come to my house on two occasions as Physician long before I became a Medical student. He has given various impressions to various people. To the outside world, *i.e.* the world of patients, he is nothing more than a sphinx. To them he is a man of few words with little patience. But to a fortunate few like me, who have had the privilege of studying under him, we saw an altogether different picture. We saw in him a man full of humour. A person who could hold us spell-bound from the minute we came in contact with him till he chose to dismiss us.

As a third year student I entered his ward. He had just started talking on Anti-helminthics. One full hour was over. He had only covered the treatment of Ankylostomiasis and he had yet to cover the treatment of other numbers of the series. As it was already late, he dismissed us with the statement that he would continue his talk the next day. Having heard a part of the story, my curiosity was aroused. Though at that time I was not posted in his wards, I religiously

turned up next morning at 10, to hear the rest of the story. It was not merely a series of facts collected at the time of treatment, but a series of anecdotes collected from ancient Indian classics, appropriately quoted so that, as one went on listening, it looked as though we were listening to a "Harikadha Kalakshebam". One day a woman with bilateral tuberculous lesion with enteritis was about to be discharged from the Hospital. She complained to him, "Sir, I am more or less in the same state as when I was admitted in the Hospital a few days ago. If only you will stop my diarrhoea and make me eat with relish some little food, I will willingly go home". For that, Dr. Guruswamy Mudaliar said, "This lady's request is very much like that of the woman who prayed to Brahma for long life and ultimately when Brahma did appear, asked that she should live to see her grandson Emperor of the whole world. So what should be the position of a grandmother of an Emperor. This lady's request is similar to the one in the fable". Of course, those were days when antibiotics were not available.

Another thing which used to strike us most prominently was the fact that whether Sun or rain, bad weather or good weather, he would always enter his main ward at the stroke of 10-30 in the morning. Within a short time after his entering the ward, there will be a huge crowd of students around him, anxious to learn something from the great master. He always talked in a low pitched tone with the result that the outer circle of students sometimes could not hear what he was talking about. But there was always such pin-drop silence once he started talking.

On one occasion, a boy who had appeared a number of times for the Final M.B.B.S. examination, worried him to pass him, as the Board of Examiners were coming out after the Board meeting. In his usual way, without saying anything, he just brushed him aside and went away. A few days later, as he was giving his clinics, he turned round and asked that particular boy for the dose of an emetine, intramuscularly. He, for one, never liked heroic doses and was particularly fond of using only the minimum required dose. This boy as ill-luck would have it,

committed the serious mistake of mentioning to him a gross over-dose. Immediately Dr. Guruswamy Mudaliar turned round and told him, "Look here, you came and worried me soon after the Board Meeting was over. If this is the way in which you are going to treat the patients, I am glad I did not pass you". The boy was so easily pulled down. He said, "Sir, If only you had allowed me to pass, I would have looked up my books. For that remark came the biting reply, "Yes, you will be able to look up only at the Autopsy room". Fortunately the whole class did not hear what he said. But the boy heard it and hung down his head in shame.

In the General Ward, Dr. Guruswamy Mudaliar used to spend atleast an hour or an hour and a half between 10-30 and 12 a.m. in the company of students. He seemed to enjoy every minute that he spent with us. As a matter of fact, to the students it looked as though he was never getting older. To them he looked eternally young, full of jokes and humorous anecdotes. On many occasions he arrived at the diagnosis utilising the history that was given to him, supplemented with a little inspection. On one occasion, an Engineering College student was admitted in his wards. This boy was admitted with a story of a low fever lasting for a long time. His father was also an Engineer. He had written down the complaint and the history covered two sheets of foolscap paper. Before Dr. Mudaliar arrived, when we looked at the lengthy complaint, we doubted if the great man would have the time and patience to read that silly verbose complaint. But to our surprise, when he arrived in the ward, the anxious patient pressed forward and presented the complaint and told him, "Sir, you must somehow save my son and save my mental agony." He said, "we will try and do whatever is possible" and started reading. As he started reading he turned towards the father of the patient and said "either you must be an Engineer or an Accountant, what are you?". That itself surprised the patient's father. He said "Sir, I am an Engineer". He immediately turned round to us and said, it is only those classes of people who are accustomed to put down everything in writing,—particularly writing in a tabular form. The statement

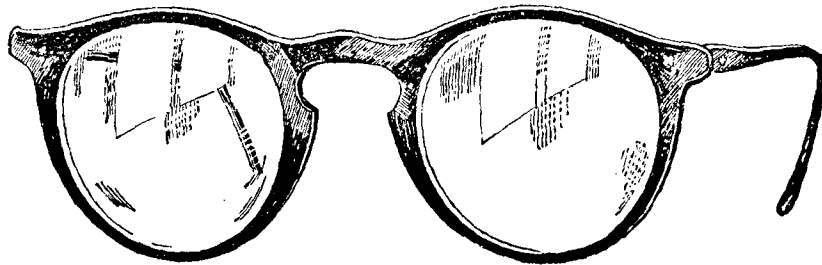
recorded was "the fever". It lasted for more than a year but was not continuous. The boy was studying in Madras in the Engineering College. He used to keep awake late in the night for purposes of reading. Here his comment was that the anxious parent did not want us to misunderstand his son. He wanted us to realise that his son was keeping late hours not for anything else but for studying only. The statement continued further and said that the boy did not like the ghee that was served in the Hostel as it was not pure but he liked chillies. Because of the low fever the boy was suspected to be suffering from Tuberculosis and was sent to Madanapalle Sanatorium and kept there for about a month, at the end of which period they declared that he was not suffering from tuberculosis and was discharged. The boy was taken home and kept there for sometime. Within a few days of arriving in the house, the temperature settled down to normal. Therefore he was sent back to the hostel and within a few days of arriving in the hostel the fever started again. So after trying all sorts of medicines for a little while he was taken back home and once again the fever settled down. This sort of thing repeated itself thrice before admission was sought in the General Hospital. So Dr. Guruswamy Mudaliar started analysing this. He said with low fever naturally one suspects Tuberculosis but in a well-equipped Sanatorium at Madanapalle if they said that it was not Tuberculosis then it was extremely unlikely to be Tuberculosis. Apart from that, look at the habits of the boy. He liked chillies but he liked only pure ghee. In the hostel he took chillies and since pure ghee was not available he did not take any ghee, so the stomach was exposed to a powerful irritant like that of chillies and that too chillies in plenty. Now what happened when he went home. Though he continued to take the chillies he took ghee in plenty. The fat protected the stomach mucosa with the result that the stomach mucosa did not suffer. That was how the fever abated when he went home and recurred in the hostel. So what our patient was suffering from was gastritis and nothing more. He said that without touching the patient. A fractional test meal was done next day and it revealed no free acid, low total acid and plenty of mucus. A few days of stomach wash with Soda bicarb. and bland diet settled his temperature.

Often times he would leave the students themselves to arrive at a diagnosis. Once let down to the diagnosis, it looked ever so simple. Very many times I felt his explanation of diseases very simple just as Dr. Watson felt when Sherlock Holmes explained to him a puzzling situation. In 1938, I worked as his unofficial house-man for 3 months and he retired in April. On the eve of his retirement I felt very sad. I felt as though one of the important pillars of the hospital was being removed. Though he retired from General Hospital in 1938 he was appointed as Consulting Physician and used to come now and then whenever his help was needed in puzzling cases. I once called him for an important case which offered all sorts of difficulties with regard to the diagnosis. To my surprise he said, "My dear Subramaniam, we cannot diagnose all cases. You must wait, watch and learn. Inform me if you succeed in getting a Post Mortem" and left. That shows the greatness of the man. That shows how at the end of so many years of Clinical training of no mean order he was still ever willing to learn.

He was an object lesson to many of the younger men. Many people who hold Professorial posts in all the Colleges in the Southern State have at one time or other learnt from him. As I stated at the beginning, though the Madras University has conferred the Doctorate Title rather late, after so many years of work for citizens of this country and though the recognition has come to him very late, we, who have worked under him, knew him to be a great Physician, an ideal teacher and a worthy son of the soil from our earliest contact with him.

In this brief sketch I have attempted to relate a few anecdotes about Dr. Guruswamy Mudaliar who has been my guide throughout my student days and professional career. I have nothing but the greatest love and admiration for this great master of mine whose life has been and is a source of inspiration to me and men of my profession all over India. I pray to God for his long life so that he may continue to serve our Country.

Today, a lifetime of keen non-tiring vision is possible because people enjoy the professional services of Ophthalmologists and the technical skills of Opticians. We provide everything these specialists need for their comprehensive services.



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MADRAS



Clinical Reports

Case I.—Name: R. Krishnan. Age: 23 years. Sex: Male. Occupation: Fisherman. Residence: Vedakarai, Malabar. Admitted on 8th June '56.

The patient was admitted in the Government Ophthalmic Hospital, Madras with a sinus along the left eye brow of 2½ years duration.

Previous History.—He gives an antecedent history of genital sore three years ago for which he had taken three intramuscular injections. Six months later, he developed swelling in the left frontal region. This swelling burst open later on with discharge of pus. He had no treatment for this condition.

Condition on admission.—Marked swelling was noticed in region of the left eye-brow. Upper half of the lid was destroyed and was adherent to the orbital margin beneath. There was a sinus in this region discharging pus.

There was lagophthalmos and as a result the cornea was exposed. Otherwise there was nil particular about the eye. Vision R. E. 6/6 L. E. 6/6. Fundus: B. E.—Normal. Further examination revealed mild balanitis and palpable inguinal lymph nodes. Uvula is absent. Epitrochlear glands are enlarged and palpable.

Blood Kahn. Positive strong. W. R. Positive strong. V. D. R. L. slide test positive in 256. Spinal fluid—Showed 3 cells/cmm. 30 mgm. % of protein. V. D. R. L., W. R., T. P. A.—Negative. Skiagram of skull revealed circular areas of rarefaction in the vault and the frontal bone.

Diagnosis.—This is a case of Tertiary syphilis with periosteitis of the left orbital margin.

Discussion.—Syphilis of the orbit is a rare condition and Birch Hirschfield (1909) found only 78 cases in the literature (Duke Elder). Orbital infection is a tertiary manifestation of the disease which may be either congenital or acquired. In this patient, the disease has occurred in the third decade and has appeared at an interval of six months after infection. Usually, the syphilitic infection of the orbit takes on the form of diffuse hyperplastic periostitis. Frequently, the lesion is symmetrically

Report of M. M. A. Clinical Meeting held at Govt. Ophthalmic Hospital, Egmore, on 13—8—1956.

bilateral. But in this patient, the condition is unilateral and skiagram shows rarefaction. The gummatous lesion has broken down leaving a persistent sinus with a characteristically depressed scar leading down to an area of softened bones.

Treatment suggested in the clinical meeting was antisyphilitic therapy with Bismuth injections followed by plastic operation for the lagophthalmos.

Case II.—Name: Subbammal. Sex: Female. Age: 40 years. Residence: Arkonam. Date of admission: 2—8—'56.

Complaint.—Black Swelling in left eye - 4 months' duration.

History.—The patient had a flat black mole since birth over the 'white' of the left eye ball to the innerside of the Cornea. Since 4 months it has been gradually growing and has attained the present size. She has pain in left eye only when the lids press over the swelling during closure of the eye. She has headache and watering in L. E. since one week. She has noticed no defective vision in either eye.

Condition on Admission.—She has a firm dark nodule $\frac{1}{2}$ " $\frac{1}{4}$ " $\frac{1}{4}$ " in the (L. E.) left eye on the nasal side of the bulbar conjunctiva. The nodule is not adherent to the deeper structure (Sclera) and its anterior surface is ulcerated in the lower half. Ulcerated margin of the swelling is not indurated.

A pigmented patch $\frac{3}{4}$ " long and $\frac{1}{4}$ " broad is noticed in the lower fornix of L. E.

Rest of the ocular structure appears to be within normal limits.

Regional glands (Preauricular) not enlarged. Liver is not enlarged. Tension: R. E. Normal. L. E.: Normal. Vision: R. E. 6/6. L. E. 6/18. Fundus: R. E. within normal limits.

Diagnosis.—This is a case of Malignant Melanoma arising from a pre-existing benign naevus in the conjunctiva. Clinically intraocular melanoma extending outside the globe was ruled out by the normal fundus appearance, normal tension and normal fields and vision.

On 1—9—'56 the tumor mass was excised completely along with a large portion of the adjacent conjunctiva. After excision of the neoplasm the base was cauterised with galvanocautery. Histopathological report of the mass removed is malignant melanoma.

The patient reported to the hospital later on 6—11—'56. The eye was quiet and there was no recurrence.

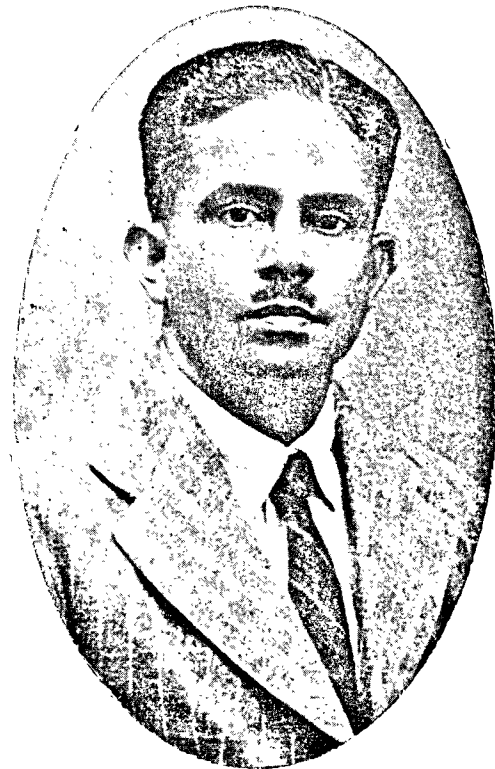
Dr. R. E. S. Muthayya, M.B., M.S., D.O. (OXON.), was born on 1st of September 1903. He entered Madras Medical Service as Civil Assistant Surgeon in the Government Ophthalmic Hospital, Egmore, on the 1st of February 1930. Except for a short spell between 1—10—1931 and 30—8—1935 he continued to be a member of the service to the end. He was assistant to the Professor of Ophthalmology from 1936 to 1946 after which he became Professor of Ophthalmology.

He went on deputation to the United Kingdom and the United States of America for special study in Ophthalmology during 1946-1947. He was appointed Superintendent of the Government Ophthalmic Hospital on 21—1—1947.

A highly qualified teacher with a kindly heart he served to the end the student and the patient population to the best benefit of both.

His untimely death on 15—4—1956 is deeply mourned by the members of the service.

IN MEMORIAM



Dr. R. E. S. MUTHAYYA, M.B., M.S., D.O. (OXON.)

Case III.—Name: Narayana Sastri. Sex: Male. Age: 38 years. Occupation: Merchant. Residence: Kellys. Admitted on: 13—8—'56.

Complaint.—Swelling and a big mass in the left eye—4 years duration.

History.—Four years ago started as a small nodule in the left eye on the nasal side close to the limbus. Gradually it was increasing in size and was operated 3 years ago in Bellary. He was completely relieved for 1½ years. Again the mass started to grow for which he was again operated. For some time the eye was quiet without recurrence but again the mass recurred 6 months ago for which he was advised to go to Government Ophthalmic Hospital, Egmore.

Condition on admission.—A big firm indurated mass of the size of a big lime is noticed filling the left orbit. The mass shows slight movement on moving the other eye indicating that the mass is related to the left eye.

Structures of the left eye are found disorganised. Regional glands are not enlarged. The case has been admitted in the hospital only to-day. Provisional diagnosis is Epithelioma limbus with involvement of the eye and the orbit.

After necessary investigations and tissue biopsy, exenteration of the left orbit is contemplated in this patient.

On 18—8—'56 a small portion of the tumor was excised for biopsy. Histopathological report was Epithelioma. Accordingly exenteration of left orbit was done on 8—9—'56. At the time of operation the medial wall of the orbit was found to be eroded. Hence the patient had deep x-ray therapy from 5—10—'56 onwards. He is progressing satisfactorily.

Case IV.—Name: Mohamed. Sex: Male. Age: 22 years. Residence: Paroku (Malabar). Admitted on 5th July '56.

Complaint.—Swelling in the region of the right lacrimal sac 1½ years duration.

Previous History.—Patient had operation twice for the swelling in the Right lacrimal sac region. Second operation was done in Coimbatore one year ago.

Condition on Admission.—A curvilinear scar is seen, in the site of the right lacrimal sac, with a generalised swelling over that area more marked below the inner canthus extending on to the side of the nose.

Pinkish granulation tissue mass with yellow spots is seen protruding through the sinus; lacrymal present passage is found to be blocked.

Investigations.—X-ray—medial wall of right orbit—normal. Von Pirquet test—Negative. Blood for Kahn Negative. Discharge from the sinus—showed spores of rhinosporidium. E.N.T. Specialist's opinion—Rhinosporidiosis of the anterior part of septum, nasolacrimal duct and nasopharynx.

Diagnosis.—A case of Rhinosporidiosis of the sac with extensive involvement of nose and nasopharynx.

Treatment.—Suggested to try Mycostatin locally.

Summary.—Rhinosporidiosis is more commonly seen in males, with a greater incidence in the west coast than in the other parts of South India. This patient also is a male from Malabar.

Pinkish granulation mass with yellow spots scattered over it is a characteristic picture in Rhinosporidiosis on which a diagnosis could be made.

Case V: Blood staining of the Cornea.—A case of Blood staining of the Cornea was also reported in the Clinical Meeting. A boy aged 12 years came with a history of injury to Left eye with Catapult. On examination the Anterior Chamber was found to be filled with blood. The patient had severe pain in the eye due to rise in tension. Paracentesis was done but the blood clot could not be removed. Tension was controlled with Diamox tablets taken by mouth.

Later on the patient developed yellowish white opacity in the centre of the Cornea with a clear periphery after the absorption of blood from the A.C. This disc-like opacity in the Cornea is due to deposition of the Haemotoidin and Haemosiderin of the R. B. C. in the deeper layers of the substantia propria of the Cornea. The condition is often clinically mistaken for a dislocated lens in the anterior chamber.

Usually in those cases of blood in the anterior chamber associated with rise in intraocular tension, blood staining of cornea develops. But we have come across cases where though the tension was on the low side, blood staining of the cornea has developed.

Prognosis regarding the clearing of the Cornea is good though it takes 6 months to 2 years. Prognosis regarding vision depends upon the lesions in the other parts of the eye produced by the same trauma.

A CASE OF SECONDARY ABDOMINAL PREGNANCY

Probably after right Cornual Rupture

From Dr. P. T. Madhaviamma's Unit.

Case I.—Patient Govindamma, Hindu, Female AN/15156 Aged 30 years Para III. Was admitted in this hospital on 31—7—55 at 11-15 a.m. with a history of (1) Amenorrhoea since 10 months (2) Slight labour pains since morning.

Obstetric History.—Patient III Para. L. M. P. : November 14th 1954 Expected date : August 11th 1955 (i) Pregnancy F. T. Natural delivery : died at the age of 12 years (ii) Birth at 8th month : 1 year and 3 months ago.

On Examination.—Patient's general condition fair. Pulse 78/ mt. temperature 98.4. B.P. 140/100. Hb : 60% Tongue clear and moist. Urine—No Albumin. Oedema—Nil. Heart/Lungs—N.A.D.

Abdomen.—Uterus 32 wks. rather enlarged transversely. Head felt in the right lumbar region. Breech felt on the left side Pelvic grip empty. F. H. heard in the right side near the umbilicus—Transverse Lie.

Old case of Dr. P. T. M. Patient was admitted in the third month for pain in the abdomen and slight bleeding per vaginum and it was thought to be pyelitis or appendicitis complicating pregnancy.

1—8—55 Exam. by obstetrician in charge of the case : Per Abdomen—Transverse Lie.

P. V. Gx not taken up, Os closed, no presenting part in the pelvis.

2—8—55 Uterus not acting. FH +

3—8—55 Uterus not acting. No draining. No bleeding. F.H. + ? Extra uterine. So it was decided to open up the abdomen. Patient was operated on 3—8—55 at 10-45 a.m.

Operation notes.—Under endotracheal anaesthesia abdomen opened by a lower median incision. Peritoneal adhesions over the anterior surface of the sac were encountered. Same separated and sac incised and a live male baby was extracted covered with meconium. There was no liq. amnii. The sac was tense and was covered all over with coils of small intestines, extending upwards above the right iliac fossa. It was completely out side the uterus which was about 12 weeks size and lying to the left of the sac. There was profuse bleeding from the left side of the sac wall near the uterus. This was sutured and bleeding controlled by mattress sutures. There was also free

bleeding from inside the sac, so the sac was lightly packed with gauze. The edge of the sac was sutured to the parietal peritonium. Umbilical cord was cut short and it could be traced to the right side on the posterior. Rest of the abdomen closed in layer. No attempt was made to separate the placenta. Pack was used because bleeding was uncontrollable.

Baby - Normally developed weighing 5 lbs. 14 ozs. Frontal suture rather wide. Skin of the scrotum and feet peeled off.

Patient was given 650 cc. of group 'O' compatible blood. A bottle of plasma and two bottles of Saline during the 1st 24 hours of the post operative period. She was also given 750 mg. of Achromycin I. V. drip.

Her general condition was good. Pulse 134/mt. B. P. 112/90 at 6-30 p.m.

On 4-8-55 next day.—Patients' general condition good. Pulse 134/mt. Temperature 102°F. B. P. 120/80. No distension. No fresh bleeding from the exteriorized sac. The pack was removed under ethyl chloride spray. Patient was given 750 mg. of Achromycin I. V. Drip in 2 pints of glucose saline for 5 days and her temperature touched normal after 72 hours after operation.

Her post operative recovery was uneventful except that she had slight fresh bleeding on 8-8-56 at 5-30 p.m. and the wound had to be dressed daily till 3-9-56 and on alternate days after wards.

Baby and mother discharged well on 10-9-55 *i.e.* after 1 month and 7 days after operation. Baby's weight on discharge 5 lb. 12 oz.

Follow up. Both have been coming for check up and are doing well.

A CASE OF SECONDARY BROAD LIGAMENT PREGNANCY

From Dr. P. T. Madhavamma's Unit.

Case II.—Patient Kanakavalli—Hindu Female Age 30 years. Admitted on 27-8-55, at 10 a.m. with history of (1) 10 months amenorrhoea (2) and complaint of slight pain abdomen.

Obstetric History.—Patient II gravida. 1st was full term natural delivery 12 years ago but the baby died at the age of 3 years.

History of present pregnancy.—Patient was admitted in this hospital between 2-4-55 to 9-4-55 for slight bleeding P.V. pain in abdomen at the 4th month of pregnancy.

Examination at that time under anaesthesia showed that there was a cystic swelling in midline of the lower abdomen. Uterus could not be felt separate from it. A male frog test done was found + ve. She was discharged with the diagnosis of fibroid complicating pregnancy and was advised to come for examination every week. She had been coming regularly every week for check up and pregnancy was found to be progressing.

On Examination.—General condition good. Pulse and Temp. normal B. P. 115/70, oedema nil, urine—No Alb. Hb. 70%—Heart-Lung—NAD. Uterus 40 wks—height—Not acting. Head in the left hypochondrium. Breech in the lower pole floating. FH +. There was a cystic swelling continuous with the uterus on the left side attached to the fundus. X-ray taken on 10-9-55 confirmed the diagnosis 'Extended Breech'.

On 26-9-55.—Patient complained of pain on the left side of the abdomen; and she was examined by the Obstetrician in charge of the case.

P. V.—Cx not taken up—extended breech per abdomen—Foetal heart was found to be slow at intervals but tone was good. Patient transferred with instruction to be watched carefully during labour. As the patient did not have any pain after coming to labour ward, she was transferred back to the ward.

On 30-9-55 9 a.m. Patient had pain in the abdomen and a slight blood stained discharge P. V. No uterine contractions could be felt. A tender mass was felt separate from the uterus and to the right F.H. +

Extra uterine pregnancy suspected and so it was decided to open the abdomen. Patient was operated on at 11-45 a.m. on the same day.

Operation notes.—Abdomen opened under general anaesthesia by a subumbilical midline incision. On opening the abdomen large vessels were seen on what appeared to be the lower uterine segment. These were ligatured and a transverse incision was made over this swelling. This exposed the amniotic sac. The wall was very thin and this unusual thinness of the uterine wall in spite of the patient being not in labour was noticed. The amniotic sac was opened, and a live foetus with part of the placenta was removed. After that it was discovered that the incision was not on the uterine wall but on the anterior layer of the broad ligament, and what was thought to be the fibroid was uterine body lying on the right side. The pelvic colon and sigmoid were stretched on the surface of the sac and back of uterus. Because of the profuse bleeding a quick sub total hysterectomy was done. The sac wall was extending downwards to the pelvic floor. About half of the placental tissue which separated by itself with the cord was removed. No more of the

placental tissue was removed because of fear of the severe bleeding. There was oozing from the area where part of the placenta had separated inspite of ligatures. This area was plugged and plug was brought out by a separate incision in the abdominal wall. Abdomen closed in layers. B. P. 90/60. Baby was revived by usual means—Weight of the baby 5½ lbs. The pack was renewed the next day, there was no fresh bleeding. The patient expired on the 4th post-operative day with peritonitis and hyper pyrexia in spite of aspiration by ryles tube. I. V. fluid and Achromycin I. V. drip etc.

Some Comments.—These cases are reported because of rarity, as extra-uterine pregnancy reaching full term is very unusual and it is extremely rare to get live children.

One of the earliest descriptions of advanced extra-uterine pregnancy was written a thousand years ago by Allucases who was generally regarded as the greatest Surgeon of Araline era. In his description he narrats of a case of advanced secondary abdominal pregnancy resulting in fistula formation and discharge of foetal parts. The famous Lithopoedian of City of Sens was reported in Gyneacorium by Cordaeus in the early part of the sixteenth century. The child apparently remained in the abdomen for 31 years and on the death of the patient at the age of 71 years, the foetus was found enclosed in a stoney crust in the lower abdomen.

Classification of Advance Extra-uterine pregnancy

1. *Primary Ovarian type.*—According to Baden & Hein only a total of 80 cases of primary ovarian pregnancy were reported upto to March 1957, and out of these only 11 cases advanced to 3rd Trimesters, and out of these 11 cases 7 infants were still born and 4 were alive at birth.

2. *Primary abdominal Pregnancy.*—Is very rare, though few cases of early primary abdominal pregnancy have been reported.

3. *Primary Tubal Pregnancy.*—It is almost a rule for the primary tubal pregnancy to end in internal or external tubal rupture in the early months, but five cases at least have been reported where pregnancy has advanced to full term.

4. *Secondary Abdominal Pregnancy.*—This is the common type of advanced extra uterine pregnancy which usually arises from intra peritoneal rupture or abortion of a tubal pregnancy; where there is a sufficient placental circulation left for the further development of the ovum. 1st case belongs to it.

5. *Intra Ligamentous Pregnancy.*—This arises from the extra peritoneal rupture of the tubal pregnancy in between the peritoneal folds of the broad ligament. This may go to term or rupture and end into tertiary abdominal pregnancy. The second case of ours belongs to this type.

Fate of Extra Uterine Foetus.—There is a very high foetal abnormality in extra uterine foetus. Mall found only 16 normal embryos out of 117 specimens, and concluded that not more than 1% of these extra uterine foetuses grow to full term to normal infants even if their vascular requirements of survival were present. (1) Survival of the child. Becks reports a survival rate of 56.6% of 60 infants of advanced extra uterine pregnancy where operation was undertaken between 36th and 40th week of pregnancy. (2) Death of the child as a result of haemorrhage, or placental inadequacy or more commonly as a result of spurious labour. (3) Maceration. (4) Suppuration or infection is added upon from adhesions to the bowel wall etc. (5) Mummification or Adipocere formation. (6) Calcificationn Lithopodean formation in about 1.5%.

Clinical manifestations.

1. Symptoms of early pregnancy: Nearly all patients give a history of amenorrhoea, nausea vomiting and breast changes etc.

2. A phase of threatened or actual rupture of ectopic pregnancy was apparent in at least half of these patients. Here in the first case she was admitted in 3rd month as fibroid complicating pregnancy. The second patient had no pain but slight bleeding which stopped.

3. Synptoms of continuation of pregnancy supervene on symptoms suggestive of rupture in those patients who do not present themselves for operation or who do not succumb to the rupture. Painful foetal movements.

4. A history of false labour or even of passing a uterine cast. Here we had blood stained discharge P. V. in the 2nd case.

5. Later on clincial manifestations may be spread out over a period of weeks, months or years depending upon when diagnosed.

Diagnosis.—Depends upon first recognizing that the patient is pregnant and 2nd the pregnancy is extra uterine.

She may complain of frequent painful foetal movements. She may give history of frequent attacks of pain, fainting attacks or even bleeding P. V.

On Examination.—(1) Abnormal presentation especially transverse lie and the presenting part may not be any where near the pelvic brim. (2) Attitude of the foetus may be highly abnormal (3) Uterine contractions

of Braxtan Hicks type will not be felt. (4) pituitrin test to differentiate between uterine or extra uterine pregnancy is not advise by most of the authorities now. (5) Radiological examination is the most useful diagnostic aid.

(i) Plain X-Ray may show abnormal position or attitude of the foetus. Soft tissue of shadow of the contracted uterus may be seen separate from the foetal sac.

(ii) Absolute diagnosis can be made by a hystrosalpingogram when the foetal skeleton shall be demonstrated lying out side the uterine cavity. But this can be done only if you are sure about the pregnancy being extra uterine. Alaparotomy may only reveal the diagnosis in complicated cases.

Differential diagnosis.—(1) Most commonly the advanced extra-uterine pregnancy may be mistaken for normal pregnancy as in the first case. (2) Fibroid or ovarian tumour complicating pregnancy as in our second case.

Treatment.—There is no doubt that the correct treatment of this condition is to make a laparotomy as soon as the diagnosis is made, with the possible exception of certain cases nearing term where a delay of ten weeks may result in normal and living baby. X-Ray abdomen should be taken in such cases to exclude foetal abnormality in 99%. Optimum time in such cases as reported by Beck, King Garden others is 38th week. It is unquestionably a mistake to wait for the death of the child in the hope that diminished placental circulation will tender the operation easy. Complication such as maceration and possibly infection of the sac naturally make the operation more hazardous for the patient.

Actual details of operation vary with each case: but in general, aim is to remove the gestation sac complete with foetus + placenta if this is possible. It may be necessary to remove the foetus and placenta separately and leave portion of the sac behind. Or it may be necessary to cut short the cord and remove the foetus leaving whole of the placenta behind if its removal appears to carry a great risk for haemorrhage.

Marsupialisation and drainage may occasionally be necessary in some cases.

Lawson Tait 1888 said that it is safer to leave the placenta in the abdomen and close the abdomen where there is danger of haemorrhage, and this shall be absorbed. Some workers even have reported that it is absorbed with in a month in the peritoneal cavity of dogs, but King Garden states that where he had to leave the placenta in one of his twelve cases it took 3½ years to be completely absorbed. But he too agrees that removal would have been fatal in those particular cases.

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Clinical Reports

41

A CASE OF HYPERTENSION WITH FIBROMYOMATA OF UTERUS COMPLICATING PREGNANCY IS PRESENTED

Patient named Dhanalaxmi aged 29 years was admitted in this hospital on 6—9—'56 at 12-40 p.m.

She complained of amenorrhoea for 9 months, labour pains since few hours and vaginal bleeding since half an hour.

Present History.—This patient was second gravida 36 weeks pregnant. Her last menstrual period was in the 1st week of December 1955. Her expected date of delivery was in the second week of September 1956. She did not have any antenatal care during the pregnancy. She had developed oedema of feet five days ago. She passed urine freely. Did not have any headache or visual symptoms.

Past History.—The uterine fibroids were symptomless. She gave no history suggestive of nephritis. From 7—9—'55 to 2—11—'55 this patient was admitted in this hospital during the seventh month of her first pregnancy for severe pre-eclamptic toxæmia superimposed on hypertension. Her blood pressure, at that time, was 190/110 she had massive oedema and ascites. Urine showed albumin. In spite of expectant treatment, the B. P. mounted to 220/160. The fundus showed hypertensive retinopathy. The foetal heart disappeared. Termination of pregnancy was decided upon. The patient was a primigravida and only twenty four weeks pregnant. The Cx was tightly closed. Her condition demanded immediate emptying of the uterus. Hence, abdominal hysterotomy was done on 17—10—'55. The uterus was studded with multiple interstitial fibroids. The products of conception were removed through a lower segment incision. And the uterine wound closed. Myomectomy was to be done two months later. Patient gradually improved. On 2—11—'55 at the time of discharge her blood pressure was 160/110; Urine showed trace of albumin. Blood urea normal. She returned for a follow up on 25—11—1956 her blood pressure was 154/110. There was no albumin in her urine.

After this she did not come back for examination.

Family History.—None of hypertension.

Examination on admission.—Fairly nourished young woman. Her tongue, teeth, gums and throat appeared, normal. Temperature was 98.4. Pulse 92 per minute. B. P. 160/130. She had slight oedema over her feet and legs. Her heart and lungs were found normal clinically. Abdominal examination showed an irregularly knobby uterus enlarged to 36 weeks size; slightly tense but not tender. None of the foetal parts could be made out. Foetal heart could be heard. The uterus was acting mildly. There was moderate vaginal bleeding.

Urine Examination.—Alb. ++; granular casts ++ Hb 50%. Inj. Morphia 1/4 gr. was given subcutaneously. An intravenous drip with 20% glucose in aqua was started after collecting her blood for grouping and crossmatching. Her pulse was recorded every 1/2 hour and she was closely watched.

12-45 p.m. A vaginal examination was made; the cervix was partially taken up; the internal os admitted one finger. Head was presenting above the pelvic brim. No placental tissue could be palpated. Artificial rupture of membranes was done letting out a few ounces of meconium stained liquor.

1-20 p.m. After this uterus was less tense, not tender, it mildly contracted every 4-5 minutes. Slight vaginal bleeding continued. Patient's pulse was 92 per minute. A blood transfusion with compatible group blood was started. The patient's pulse rate remained between 90-100 beats per minute. Uterine contractions progressively increased in intensity. The head entered the pelvic cavity. There was no further vaginal bleeding.

6-30 p.m. Her blood pressure was 160/130—180/130. Pulse 100/ per min. Urinary out put was average. 20% Glucose in aqua was continued intravenously slowly. Patient had an eclamptic fit lasting one minute.

Inj. Morphia Gr. 1/4 was repeated. Uterus contracted strongly. Head was engaged.

8-45 p.m. A vaginal examination was made to decide whether she could be delivered.

P. V.....Os fully dilated, head on the perineum.

9 p.m. She was delivered with axis traction forceps under general anaesthesia. A dead born premature male child 4 1/4th lbs. was extracted. Inj. Methergin 2 mg. was given intravenously. The placenta did not separate for 10 minutes. It was manually removed. The uterus was explored and found intact.

10-15 p.m. The uterus was found full of clots, same were expressed and the uterus was massaged till it was firm. B. P. 90/60, pulse 30 per min.

12 midnight. The uterus continued to become flabby and filled with clots. Inj. Methergin was repeated and blood transfusion restarted (2nd bottle of blood) as her pulse was 160 per min. and B. P. ?

2-15 a.m. B. P. 105/80, Pulse 136 per min. V and T fair Uterus firm. Blood flowing in.

3-30 a.m. Pulse 120 per min. V and T fair. B. P. 110/80 flowing in.

6 a.m. B. P. 125/95. Pulse 100 per min. V and T improved. Blood finished at 7-35 a.m. Total amount transfused being 950 c.c.

There after patient improved steadily but slowly. She passed 25 ounces of urine in first 24 hours after delivery. She did not have any more fits. B. P. ranged from 150/100—140/100. Amount of albumin decreased in urine. It showed granular casts microscopically. Blood urea 30 mg. %

Fundus Examination.—Hypertensive retinopathy. Silver wire tortuous arteries irregularly narrowed with kinking of veins where arteries cross them.

Urine.—Sp. Gr. 1024, alkaline, Albumin + Granular casts +.

What should be the further management of this case? Can she risk another pregnancy? Should the uterine fibroids be left alone since they cause no symptoms?

A CASE OF UTERUS DIDALPHUS HAS BEEN PRESENTED BECAUSE OF ITS RARITY

The patient is by name Navamma aged 27 years admitted in this hospital on 1—8—1956 with the following complaints (1) Something coming down per vaginum since her last delivery which was 5 months ago (2) Continuous bleeding per vaginum 15 days.

Menstrual History.—She attained puberty at 13th year, since then she gets her periods regularly every month, the flow which is moderate lasts for 3-4 days and is painless. She had 3 normal periods after the last delivery. Her last menstrual period was 15 days back and even on admission she was bleeding per vaginum.

Marital and Obst. History.—Married 13 years ago. Had 7 deliveries out of which 3 were full term natural and 4 were premature. Six of these occurred as breech and only one was vertex presentation. During all her pregnancies the uterine enlargement has been towards the right side. Her puerperium was normal.

On General Examination.—A well nourished individual G. V. S. and Resp. system N.A.D.

Abdomen nil abnormal.

Vaginal Examination.—Perineum slightly lax. Two vaginae felt with a septum in between separating the two. The septum extended from the external urethral meatus almost to the perineal body. The upper limit of the septum was between the two cervixes. Part of the septum was protruding outside the introitus. The two cervixes were felt at the vault of the vaginae and corresponding to that two utera were felt separate, the right one being slightly bigger than the left. Fornices were free.

Investigations.—(1) Hysterosalpingogram done after bleeding stopped. Two uteri seen. (2) I. V. P. Normal. (3) Endometrial biopsy done from both uteri. Proliferative phase. (4) Gauze soaked in radio opaque material (barium sulphate) was kept in the two vaginae and a sponge forceps attached to the septum and X-Ray taken shows two separate vagina.

The case which is being presented is one of uterus didelphys which is normal in shape. In 50,000 cases in London and Liverpool it was noted only in 5 cases.

Formation of uterus results by the union of the two Mullerian ducts and any abnormalities in the union result in malformation. Uterus may be completely absent or only noted by the fibrous cord from failure of Mullerian ducts to develop or to be canalised. In such cases the upper 4/5th of the vagina will be absent as well. In cases where the uterus is present abnormalities may still occur due to failure of Mullerian duct development or failure of fusion in different degrees.

Uterus didelphys occurs as a result of complete failure of fusion of the Mullerian ducts. It is very rare in women and is commonly associated with other abnormalities of the genital urinary tract in about 30-40% of cases. No treatment is required. Ordinarily unless associated with symptoms like dyspareunia repeated abortion, obstructed labour etc. As the patient came mainly for the prolapsed vaginal septum we decided to explore the septum and sterilise her on request.

Operation notes. Abdomen was opened by a right sub-umbilical paramedian incision. It was found that there were two separate utera which were separated by the peritoneal reflection. The peritoneum from the bladder has been reflected to the rectum between the uteri. Bilateral salpingectomy was done. Vaginal septum was bisected and colpo perineorrhaphy done.

A CASE OF VOLVULUS COMPLICATING PREGNANCY

Name: Amaravathy. Age 28 years. Admitted on 7-6-'56 at 7 a.m. with a history of 5 months amenorrhoea and severe pain in the abdomen of 5 hours duration.

Past illness.—Nil particular.

Personal History.—Puberty at the age of 12 years. Periods 5/30 normal and painless. L. M. P. 5 months ago. Married at the age of 13 years CH. 5. F. T. N. all alive. Last child 3 years ago. Bowels and micturition regular.

Condition on admission.—Fairly well nourished woman. Nails and conjunctivae pale. Tongue moist and clear. Temperature 98.4. Pulse 88-mt. Vol. and tension good. Resp. 22/mt. B. P. 100/70 Heart and lungs NAD. Per abdomen. There was distension of the upper abdomen but the abdomen moved well with respiration. Liver and spleen not palpable. No tenderness in the upper abdomen.

Uterus was enlarged to 20 weeks, Somewhat tense but not tender. External ballotement of foetal parts could not be elicited. There was guarding of the muscles and the patient resented the examination. There was no other palpable mass in the abdomen. Renal angles not tender. Percussion showed liver dullness but other areas were resonant.

Patient was catheterised and 4 oz. of high coloured urine drawn.

Per Vagina.—CX felt firm. Os closed. Uterus enlarged to 20 wks. size and tender. There was no blood on the examining finger.

Other Investigations.—Total W. B. C. 24,000 per cmm. A drop of catheterised urine showed plenty of pus cells and microorganisms. A provisional diagnosis of pyelitis of pregnancy was made and patient kept under observation after giving an inj. (I. M.) 1 gm. of streptomycin.

1 p.m. She still complained of pain of the same severity as on admission but did not vomit. Temp. 100. Pulse 90 p.m. Resp. 22/mt. The abdomen looked more distended and was resonant. An injection of Bepan-then 1 ampoule I. M. was given.

3 p.m. Abdominal condition same. On passing a Ryles tube patient vomited. 2 kidney trays full of undigested food material. Pulse 90 p.m. Temp 100. In view of the high leucocytic count and pus cells in the urine it was decided to treat her for infection.

She was started on 500 mgm. of Terramycin in 250 c.c. of 20% glucose.

5 p.m. Patient still complained of severe pain. But did not vomit. Abdomen distended, resonant as before and there was marked tenderness over the uterus. Pulse 120 per mt. good in vol. and tension. The I. V. Terramycin drip was continued.

At 8 p.m. Patient vomited once and became cold and tongue was dry and coated. Pulse 130/mt. Vol. and tension fair. B.P. 80/50. The obstetrician in charge advised a Ryles tube to be put in and to continue the I. V. drip and give another 500 mgm of Terramycin.

Ryles tube passed and 24 Oz. stomach contents aspirated throughout the night.

8—6—'56 7 a.m. Patient looked dehydrated in spite of I. V. drip. Tongue dry and coated. Temperature 100° Pulse 130/per mt. Poor in volume and tension B.P. 100/60. The abdomen was distended and resonant on percussion. In addition presence of free fluid in the abdomen was made out. Uterus was markedly tense. No foetal parts made out.

A vaginal examination showed a firm Cx and a closed Os. Size of uterus 20 wks.—There was no blood on the examining finger.

A diagnosis of acute abdomen was made with the possibility of a concealed accidental haemorrhage in the uterus was also thought of and a laparotomy decided upon.

8 a.m. Under spinal anaesthesia abdomen opened by a right paramedian incision. Plenty of fluid escaped from the peritoneal cavity. There was gangrene of about 3 feet of the small intestine in the terminal ileum as a result of torsion of its mesentery. There were two twists and the same undone. There was no perforation of the gut but the lumen was markedly distended. The gangrenous bowel was resected and an end to end anastomosis done. Patient had I.V. Injection of 1 ampoule of prostigmin. Uterus looked healthy. Soluseptasin 10 c.c. was put in the peritoneal cavity and abdomen closed in layers. During the operation patient had 500 c.c. blood and returned to the post-operative ward in good condition. Post-operative: Patient was put on I. V. Terramycin. 1000 mgm. 500 mgm B. D. bepanthen for 5 days.

The temperature ranged between 99° and 100·2° on the 1st 3 days and touched normal on the 4th day. The rest of the post operative period was uneventful. The clips were removed on the 9th day and wound had healed

by 1st intention. She was discharged and on 27—6—'56 and was advised to attend the A. N. O. P. She was readmitted on 11—8—'56 1½ months after discharge, with a history of bleeding P. V. and she aborted spontaneously on 11—8—'56. She was discharged on 14—8—'56.

A case of volvulus complicating pregnancy is presented. Intestinal obstruction is one of the rarest complications of pregnancy. Out of 34 cases recorded in English literature up to 1941, Hensen found the commonest cause of obstruction was strangulation by bands, in 44% volvulus, in 17% intussusception, in 11% other cases like holes in the mesentery and obstruction by foreign bodies accounted for 13%.

It is generally said to be more common at the 4th and 9th month, in labour and in early days of puerperium. At the 4th month, as the uterus is rising out of the pelvis it is likely to put adhesions on a stretch.

Diagnosis.—Is more difficult than in the non-pregnant. The symptoms are apt to be regarded as being due to pregnancy and so the diagnosis may be missed in the early stages as it happened in this case. The cramp like pain may be thought to indicate abortion. Vomiting may be mistaken for pyelitis, other conditions needing differentiation being accidental hge. and torsion of an ovarian cyst etc.

A CASE OF ADENOCARCINOMA OF THE PELVIS OF THE LEFT KIDNEY.

It is a purely surgical condition but as it was mistaken for a malignant ovarian tumour, the case was dealt with in this hospital.

Patient Adilakshamma aged 72 years was admitted in the Gynaec ward on 30—3—1956. Her complaint was that she had a mass in her abdomen of 3 months duration. It was growing in size gradually. She had no other complaint except that she felt weak. Her appetite was slightly impaired. She had no pain. Her sleep was not disturbed. Bowels and micturition were normal and she felt quite fit.

Family history—She was a widow. **Personal**—Nil relevant.

Menstrual History.—She attained menopause 20 years ago. Puberty was in the 14th year. Her periods were regular 4/30. She had no trouble during her menopause. Periods had stopped off abruptly.

Obstetric History.—She had 4 full term natural deliveries. Her last child was 37 years.

Condition on admission.—She was fairly nourished young woman of about 70 years of age. Tongue was slightly pale but clean and moist. She was apparently anaemic. Glands in the neck, axilla or groin were not enlarged. There was no oedema of her lower extremities. C.V.S./R.S. - normal. Temperature 98.4° F. Pulse 84/min. Volume and tension good. Respiration 20/min.

Abdomen moved freely with respiration. There were no distended veins. A mass seen in the abdomen and iliac regions. On palpation the tumour was circumscribed about 9" x 7" cystic in a few areas and firmer in other areas occupying the left iliac and lumbar regions. It was dull on percussion. It was freely mobile from side to side but mobility was restricted from above downwards. It was not tender and there was no free fluid in the abdomen.

Vaginal examination.—Showed that the external genitalia were normal and healthy. The cervix was atrophied. The body of the uterus was atrophied, small and anteverted. The lower pole of the firm mass could be felt through the left fornix. The right fornix was clear. There was no tenderness and there was no discharge on the examining finger.

A malignant ovarian tumour was diagnosed on account of the age and rapid growth of the tumour. Her Hb. was 45% R. B. C. 2.12 mill/Cmm. Total W. B. C. 9,800/Cmm. B. P. 145/90. Urine was clear. There was no albumin or sugar or acetone. Blood urea was 25 mgm% I. V. P. could not be done as it was fixed for a very late date (2 months hence) and as it was suspected to be a malignant tumour we could not possibly wait for 2 months.

Her anaemia was improved with I. V. iron therapy. Neoferrum 100 mgms. with 20 cc. of 20% glucose was given daily. Her general condition had improved and she was posted for operation on 12—4—1956.

Under heavy spinal anaesthesia, the abdomen was opened by a right paramedian incision. The uterus, tubes and ovaries were found to be normal. The left ureter was dilated to the size of a finger. The right ureter was normal. There was a tumour partly cystic and highly vascular behind the meso colon in the left lumbar region. The layers of meso colon were incised and the tumor was separated easily. The upper part of the tumor was attached to the lower pole of the left kidney. The tumor could be easily separated from it as the tissue was rather friable. The raw area was closed with a few sutures; Gelfoam was put in and the layers of meso colon were sutured. The abdomen was closed as usual. Nephrectomy was contemplated but was not done as the condition of the patient was rather weak during the operation. The tumour was about 10" x 7" x 6" and weighed about 2 lbs. Cut section showed friable and

necrosed haemorrhagic areas. It was sent for Pathologists examination. She was given the usual antibiotics. An indwelling catheter was placed *in situ* and output of urine was recorded every hour. Her blood urea was estimated every day. On the 5th, 6th and 7th days after the operation, the blood urea rose to 147, 148 and 150 mgms% but on other days it was nearly normal.

On the 9th day, abdominal clips were removed. The wound healed by first intention.

On the 17th day she developed rise of temperature due to urinary infection. Urine contained pus cells and motile organisms. She was treated with sulphadiazine and alkalies. On 12—5—56 an I. V. P. was done.

Pathology Report.—Showed the tumour was an adenocarcinoma of the pelvis of the kidney. It was decided that a nephrectomy should be done and the kidney functions were investigated.

Blood urea was 15 mgm%. Urine urea was 151.2 mgms%. Urine secreted per minute was 2.9 cc. Percentage of normal renal function for concentration was 38.8. On 15—5—56 the case was referred to a Surgeon. The report was that it appeared to be case of retroperitoneal tumour and he advised us to repeat the histopathological examination, as the pathology report was incomplete, and to send her to the Cancer Conference for decision.

She was however posted for Nephrectomy on 25—5—56 as her general condition was sufficiently improved.

On 25—5—56, under endotracheal controlled anaesthesia, left nephrectomy was done by the lumbar route. Pathology report showed areas of infarction and necrosis. No neoplasm was seen in the kidney. Obviously the tumour arose from the pelvis of the kidney; excised completely. The usual antibiotics were given and urine out put was recorded. On 4—6—56, the skin sutures were removed, and wound healed well. The post operative period was uneventful excepting for a mild urinary infection which subsided with treatment. She was discharged on 31—6—56 and was advised to come back for a check up 2 months later.

The mass in the abdomen was mistaken for an ovarian tumour as it was freely mobile. A kidney tumour could have been very well suspected but there were no urinary symptoms at all nor did the urine examination reveal anything abnormal.

A CASE OF "TUBEROUS SCLEROSIS" OR "EPILOIA"

Case No. 1.—A Christian male aged 18 years was admitted into this hospital with a history of convulsions from birth onwards. He never progressed at school. His mental condition was one of imbecility. "Adenoma Sebaceum" was marked over his face. This is a cutaneous lesion that is characteristic of the condition "Tuberous sclerosis". It consists of soft nodular eruptions of fleshy and succulent nature of size varying from pinhead to a pea, discrete or confluent, distributed over butterfly area of the face, with the superadded seborrhoea. Similar lesions may occur over any other areas of the skin, as in this case, namely over the legs, and back. Subungual fibromas and multiple neurofibromata are usually the other cutaneous anomalies noticeable. Cases do occur without any cutaneous involvement.

But such cases are rare. X-ray of the skull in this case revealed multiple intracranial calcified spots. These are areas of gliosis that are calcified. Calcification is not present at birth but commences in childhood and is progressive. X-ray chest revealed a giant cyst in the right upper lobe and honey combed appearance in both the lungs.

A clinical condition called Pulmonary Tuberous Sclerosis has been described wherein respiratory findings are common. Recurrent respiratory infections, haemoptysis and spontaneous pneumothorax are common.

Associated congenital abnormalities in other organs are usually described in this condition such as phakomas of retina, congenital heart disease, cardiac tumours, adenocarcinoma of the kidneys and gastrointestinal neoplasms. A variety of bone involvement has been described in this disorder. Investigation in this case did not reveal any of these associated conditions. Diagnostic difficulties often arise if the cutaneous lesions are absent.

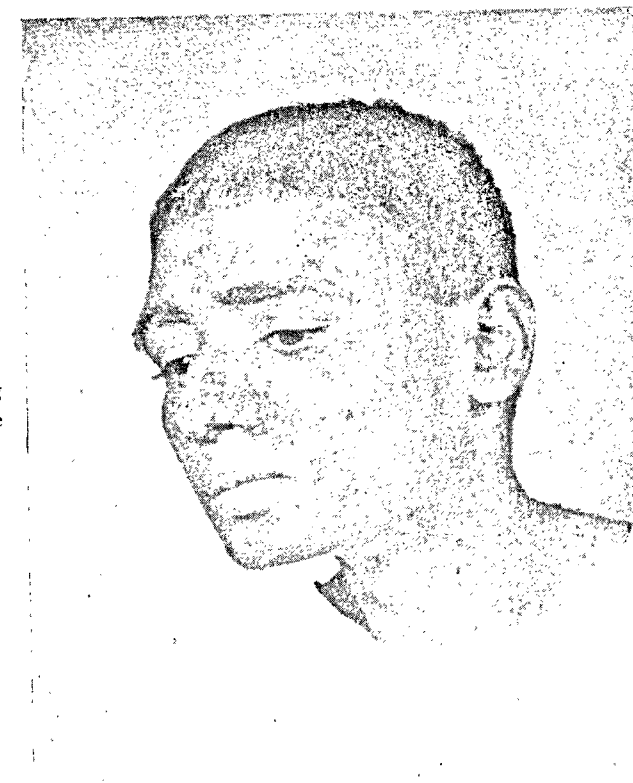
The patient was given anti-convulsant drugs such as phenobarbitone, hydantoin group of drugs and primidone (Mysolin). Though the frequency of fits was controlled, they were never completely warded off. A trial of Glutamic Acid and Brains (Himalaya Drug Co.) was suggested at the meeting.

Developmentally, the condition is related to Von Recklinghausen's disease (multiple Neuro-fibromatosis), Sturge Weber syndrome (encephalotrigeminal angiomatosis) and Hippel Lindau syndrome.

Proceedings of the Clinical Meeting of the Madras Medical Association held at Government Mental Hospital, Madras on 10th October 1956.



A Case of Tuberose Sclerosis showing
Adenoma Sebaceum over the face



A Case of Tuberose Sclerosis showing
Adenoma Sebaceum over the face

**CASES OF SCHIZOPHRENIA EACH SHOWING RESPECTIVELY
MANNERISMS, NEGATIVISM AND PARANOID
PHENOMENON WERE DEMONSTRATED**

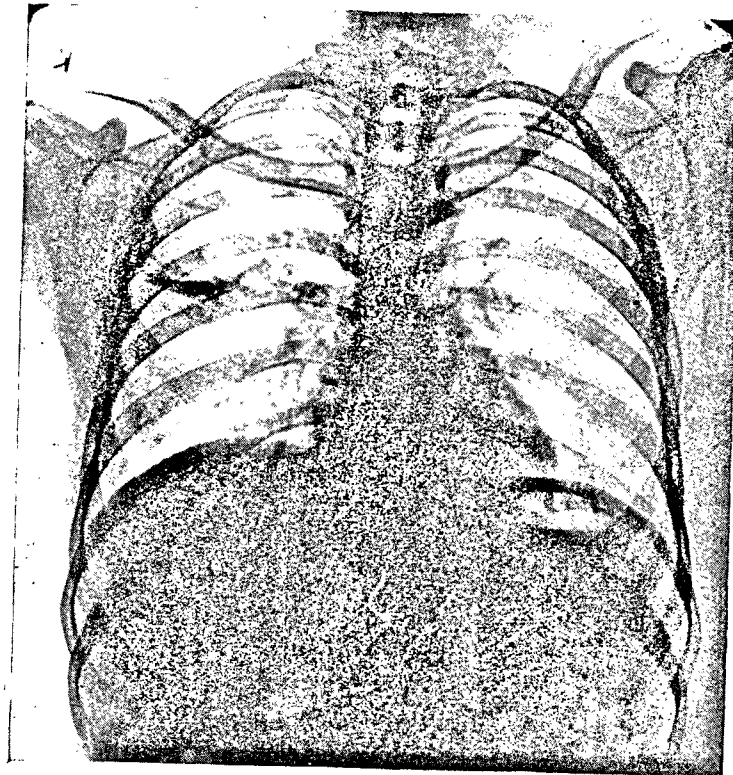
Introduction.—Schizophrenia denotes a “split personality”. The cleavage of personality is one of molecular type as opposed to the molar type in Hysteria. Schizophrenia forms a common but a malignant type of mental disorder with a relentless progress affecting people usually at their prime of life. Hence it was termed Dementia Præcox. After the advent of recent methods of therapy such as Electro-Convulsive-Therapy and Insulin Coma Therapy, there has been a change towards a better prognosis. To effect a “cure” the cases are to be spotted at the earliest stage *i.e.* within 12 to 18 months from onset. The essential psycho-pathological lesion is the washing away of the affect—*i.e.* the individual is rendered emotionally barren. The predisposing features are asthenic habitus and an introvert temperament. The symptomatology of the disease are protean but four types are described.

1. **Simple Type.**—In this variety, the individual gradually withdraws from the realities of life and begins to live in a World of his own. Apathy is characteristic and psychomotor retardation is usual. The afflicted individual thus loses interest in the environment and turns into an introvert. Fatigue, inability to think in a sequential fashion, sluggish emotional display are common features. Being insidious in their onset, early detection of these cases is difficult and they lapse into a chronic irreversible phase.

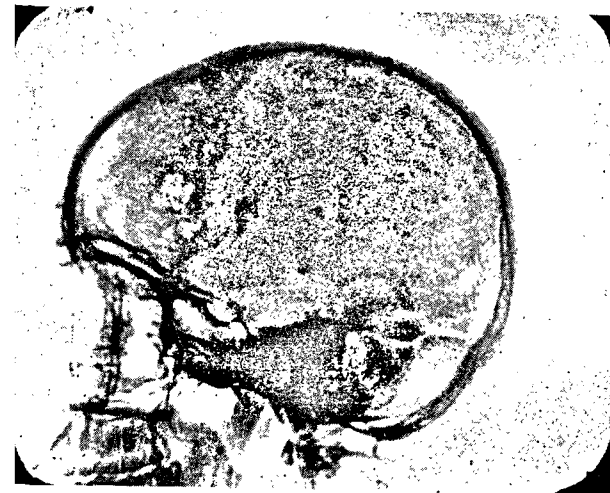
2. **Katatonic Type.**—Here the individual develops a katatonic rigidity of the musculature of the body. He may be forced into any posture by manipulation of his limbs, and this is sustained—a condition called “*flexibilitas cerea*”. He sits or stands like a wax model absolutely indifferent to the external stimuli and to his personal needs. Mutism is marked in some cases. Impulsiveness is common. Remissions are induced with treatment.

3. **Hebephrenic.**—Hallucinations and mannerisms are characteristic of this variety. The patient makes grimaces with his face, gesticulations and vacuously smiles. He is likely to become impulsive and cause physical violence to others. Hallucinations are of usually visual, auditory type but they may pertain to any organ. In view of the grossly bizarre behaviour, these cases can be spotted in their early phase.

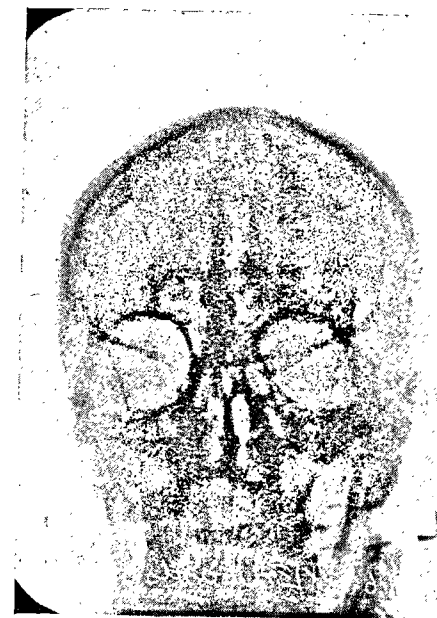
4. **Paranoid.**—Delusions form the hall mark of this variety. Delusions of suspicion, persecution or of grandeur may be noticed. Occasionally delusions are centred around any viscera of the body—Auto-psychic



Skiagram Chest to show a Giant cyst in the Rt. Lung
(Case of Tuberosc Sclerosis)



Skiagram Skull (Lateral view) showing Intracranial
Calcification—A Case of Tuberosc Sclerosis



Skiagram Skull (A. R. View) showing Intracranial
Calcifications—A Case of Tuberosc Sclerosis

delusions. It is a common place finding to see such patients persuing their daily routine for long before they seek admission.

Case No. 2.—Mr W. G. Complained that some one has been controlling his mind and causing him a lot of trouble. He feels giddy and experiences a peculiar sensation in his head. He has olfactory hallucinations of experiencing a foul smell in his nose. He has had visions of some group of armed men coming and assaulting him. He had experienced auditory hallucinations of voices indicting him and making him feel difficult to concentrate.

Case No. 3.—Mr. V, has a fixed delusion of grandiose nature when he said "I am the Viceroy of India. I belong to the Royal Family of Buckingham Palace. The hospital is run at the expense of my pension". When questioned as to why a Viceroy is in the hospital, he replied "It is a great Secret. It cannot be let out". This delusion has been with him for the last several years. This is an instance of Paranoid Schizophrenia.

Case No. 4.—Mr. K. was showing an extreme degree of negativism. He had his lips spouted like that of a pig ("Schnauz-crampfh") and was absolutely indifferent to the external stimuli as though he had built around him a barrier.

A case of Acute Mania was demonstrated

Case No. 5.—Mr. P, a teacher by profession and of an *extravert* temperament and of a pyknic build broke down mentally after the death of his wife. His emotional tone was one of elation and he displayed an accelerated psychomotor activity. He danced and sang at the slightest suggestion and was very voluble. Made himself very familiar with the audience. Orientation was intact and memory was good. He was emotionally labile—laughing heartily one moment and crying with tears at the next. There was a clang association in his speech—"Send me from the "Mental" Hospital to the "Dental" Hospital". He was boisterous and was uncontrollable.

Manic Depressive Psychosis forms another major group of mental disorders and with Schizophrenia, comprises a large majority of the patients in a mental institution. This disorder primarily involves the affect or the mood. Mood changes are common. A pyknic build and cyclothymic temperament predispose to this malady. The disorder may be seen as a Hypomania, Recurrent Mania, or Episodes of Mania alternating with depression or adpression. An unfavourable group of cases become Chronic Manics ending in dementia. In general the symptomatology comprise the following:—Happy disposition, a feeling of gay and well-being, excessive talking, psychomotor acceleration, quick swings in emotion, restlessness etc.

Dr. J. Dhairyam, M.D., F.I.P.S. comes from an agricultural landed family of Tanjore. Had his early education at Tanjore and Trichy. Then coming to Madras he graduated through Madras Medical College early during the first World War. He served as an Assistant Surgeon in the Agency Tracts and during the Kumpah rebellion was mentioned in despatches. Joined the Madras Mental Hospital in 1928 and became Deputy Superintendent within a few years. In 1941, He was appointed Superintendent of the Government Mental Hospital and Professor, Madras Medical and Stanley Medical College, Madras. He retired in 1948 and set up a private Nursing Home and Clinic. He was called away from our midst on 30th September 1956. We deeply mourn his loss.

IN MEMORIAM



Dr. J. DHAIRYAM, M.D.

In depression the converse holds true. The person is depressed and is sad; and misery, despondency and hopelessness pervade him. He feels frustrated and believes that there is no hope for him. A feeling of guilt hangs heavy upon him. A sense of grief chokes him. There is marked psychomotor retardation. To attempt suicide does occur to his mind and occasionally it proves successful. Delusions are of persecutory or self accusatory type. Sleeplessness, head-ache, fatigue, chronic abdominal pain, a preference to loneliness or fear of dark and lonely places are amongst the common manifestations of latent depression in general practice.

Case No. 6.—Mr. A, a driver in the Government Transport Service was admitted into this hospital a year and a half ago. He was sleepless and was found to be losing efficiency in his job during the preceding few months. His memory for recent events was impaired. He was euphoric and eutonic and there was a gross dysarthria. His utterances were of grandiose type "I am a king and I own all the buses of the Transport Service". "I am the Publisher of all the News Papers in the City." "My wife is the Queen and she visits me daily in the hospital". He had Argyll Robertson pupils, tremors of the tongue, lips and fingers. Serological examination confirmed the diagnosis of General Paresis. X-ray chest revealed evidence of Aortitis even though it was not recognisable clinically. After preliminary course of Iodides and injections of Bismuth, he was given Penicillin Aluminium Mono-Stearate six lakhs units on alternate days for a total of nine mega-units. At present his mental condition has improved. This is an instance of grandiose type of General Paresis.

Case No. 7.—Mr. P, also a driver in the Transport Service was admitted into the hospital one year ago, for not attending to his work regularly. He was noticed to be absent minded and used to stay away from work without obtaining leave. He had a poor memory for recent events and his speech was dysarthric. His appearance was one of dullness and apathy and he was free from any ideas of grandeur. His range of interest was getting narrowed gradually. Serological examination revealed the diagnosis of General Paresis. Specific therapy as in the above case was given. Radiography of the chest revealed widening of the Aortic Shadow. He too improved in his mental condition but not to an extent as to render him to return to his job. This is a simple dementing type of General Paresis.

Syphilis still remains a notorious disease that affects the noble organs of the body—namely the Brain and the Heart. No doubt the late tertiary neuro-psychiatric complications will gradually dwindle with the effective treatment of the primary syphilis and other measures. That General Paresis is not so uncommon a condition in this part of the country can be understood by a glance at the statistics of this hospital. Out of 661 consecutive

Male cases admitted for various mental disorders during the period of one year (Between August 1954—July 1955) 33 cases were General Paretics—an incidence of 5% of all the mental disorders. Some of our observations on these 33 male paretics are summarised here. Brevity is forced by shortness of space.

Age Incidence.—Majority of the patients fell between the age period 30—50 years with 2 peaks of incidence at 30th and 40th years. 2 cases were over 50 years and only one case was 20 years old.

Occupation.—About a third of the patients were pursuing such occupation as to demand mental exertion and an equal number of patients was from the manual labouring class. It is interesting to note that 5 of the patients were Bus Drivers by occupation.

Psychiatric Findings.—Grandiose forms are believed to be the commonest manifestation. But in practice it is not quite so. It is to be remembered that all that is grandiose is not paretic. Only 1/3 of the series were possessed of grandiose ideas whereas in only 2 of them were expansive and megalomaniac forms seen. An equal number was of simple dementing type. Acute maniacal excitement was observed in 5 cases and chronic excitement in 3. There were 2 cases of depression—one of them with a suicidal tendency. Auditory hallucinations were present in one case together with delusions of suspicion. Episodes of bad temper were noticed in 2 cases following convulsions.

Neurological Findings.—(a) *Pupils*: Pupillary abnormalities were noticed in 16 cases *i.e.* 48% of the series. 8 of these had typical Argyll Robertson pupils, while 7 others showed an incomplete type of A.R.P. In one case aged 20 the pupils were dilated believed to be a case of congenital paresis. In the remaining 52% no pupillary abnormality was discovered.

(b) **Speech Disturbances.**—In 23 cases speech disturbance was present *i.e.* (70% of the cases) speech was slightly slurring in 5 cases (15%), grossly defective in 13 cases (40%) and the disability amounted to anarthric mutism in 4 cases (12%). Nominal aphasia was noticed in 1 (3%). It can be seen that in more than 2/3rds of the cases speech disturbances was present. No speech disturbance was noticed in 30% cases.

(c) **Convulsions.**—4 cases (12%) developed convulsions some time during the course of illness. In 2 of them episodes of bad temper and attempt at physical violence were noticed following fits.

(d) **Paralysis.**—Hemiplegia was noted in 3 cases (9.9%).

(e) Association with Tabes Dorsalis was seen in 3 cases (9.9%) and all these 3 had typical Argyll Robertson Pupils.

(f) **Trophic Disturbances.**—Aural haematomas were noticed in 4 cases (12%). Marked clubbing of the fingers of both hands was seen in one case. Spontaneous fractures due to osteoporosis were seen in a couple of cases. Loss of weight was seen in a few cases.

Aortic Syphilis.—Aortitis was discovered in 5 cases (15%) and in one of these there was a frank Aortic Regurgitation (3%).

Serological Findings.—Cerebrospinal fluid was serologically positive in 100% of the cases. Blood was negative for W. R. and Kahn in 8 of them (24%). Both the cerebrospinal fluid and the blood were positive in the remaining 76% of the cases.

There was a mortality of one case during the treatment with Penicillin Aluminium Monostearate. The patient did not have preliminary Bismuth. After the first injection of 6 lakhs units of P.A.M. he developed a convulsion following which he was Hemiplegic. L. P. revealed a normal C. S. F. He expired 48 hours after the injection. No Autopsy was available. Jarisch Herxheimer reaction was suspected.

Case No. 8.—A case of Typhoid presenting as a Psychiatric case (Psycho-Typhoid). Mr. P. a married Hindu Police Constable aged 30 was admitted into this hospital on 1—10—1955 as a certified case from a mofussil Head Quarters Hospital. On admission his mental condition was as follows:—

“ He was very talkative and was easily distractible. His mood was one of elation. He displayed an accelerated psychomotor activity and showed a flight of ideas. He was easily provoked to talk. His orientation to place, time and persons was intact whereas his memory showed a certain degree of crowding. No hallucinations or illusions were made out. His body build was of an athletic type”. In short the picture was one of acute confusional psychosis.

The patient was febrile at the time of admission (Temperature 102° F). He was appearing dehydrated. No abnormality was discovered in the Cardio-Vascular system. Liver and spleen not palpable. There was no neck rigidity and Kernig's sign negative and pupils were normal. No abnormality was discovered in C. N. S.

History of the present illness.—The complaint started suddenly 10 days prior to his admission into the hospital, when the patient began talking incessantly, and was singing—was emotionally labile and was crying

and laughing for no reason. He was destructive in habits and was found creating trouble in the streets. He was picked up by the police and was detained for observation. He has been certified at the Headquarters Hospital as follows :—

“ Patient is dull and has variable moods—at times sprightly, laughs and cries for no reason. Distructible—Poor and fleeting ideation—boisterous—eats and sleeps poorly. He tried to burn his clothes in his cell. He has a delusion that he is a drama actor ”.

Urine examination showed acidic reaction with specific gravity of 1018. There was no Albumen or Sugar. Blood Smear did not reveal malarial parasite. The total leucocyte count was 5,400/c.mm. and the differential count was P 62% L 34% and M 4%. Motion Examination revealed no ova or cysts. The lumbar puncture was done and the C. S. F. was clear and was not under tension. Its protein content was 15 mg. % and the cell count was under 10. Blood Wasserman and Kahn and C. S. F. W. R. and Langes were negative.

12—10—1955.—Blood for widal and culture : Salmonella typhosum grown in culture. Urine and motion cultures were negative. He was started on specific chemotherapy whereupon his temperature came down by lysis.

25—10—1955: Motion Culture.—Salmonella typhosum grown in culture. Urine culture negative. On repetition of blood, motion and urine examination the reports were : Widal was positive 1 in 400 for S. Typhosum and positive 1 in 50 for Para A, and blood, urine and motion cultures were negative. Patient's mental condition showed an amelioration in proportion to the fall of temperature though with a spurious relapse he required sedation for control. He was discharged on 21st January 1956.

This case is presented on this occasion not because Typhoid is new to you nor as a rule does it form a part of our province but to remind ourselves that a case of typhoid may present itself as a psychiatric case. In this case, it has been obviously not thought of even though the patient was under observation for a period of more than a week. In the current case, psychotic changes were not as a result of the complicating meningitis nor to meningism. Mental change is a well known sequel to Typhoid but in this case patient had no sequel when he was discharged fit.

In this connection, it is to be remembered that the presenting signs and the symptomatology of a toxic psychosis are dependent upon and bear a direct relation to the underlying premorbid personality of the individual affected. In any case be it an infection, drug, tumour of the brain or trauma to the brain it is the underlying defective personality that is unravelled by these agents.

In this case, the patient has been a very sociable and friendly type of person—commanding a large circle of friends and was good in his work—these are characteristics of an extravert type of personality. There has been no family history of mental illness nor did he suffer from any previous mental illness. His presenting picture was that of an acute confusional Psychosis with manic features when he was afflicted with Typhoid.

CASE REPORTS FROM DR. K. C. NAMBIAR'S UNIT

Case presented by Dr. V. Janardhana Nair, M.S., in the clinical meeting of the Madras Medical Association

Case No. 1.—A case of Parkinsonism treated by injection of alcohol into the Globus Pallidus. Name: Doraiswami, 55 years, male, admitted into the Krishnaswami ward under Dr. K. C. Nambiar on 26—10—'56.

Complaint.—Tremors of both hands and jaw and weakness of both hands. More on the left hand. Duration 3 months gradual onset.

Examination of the central nervous system.—Deep reflexes brisk otherwise nil abnormal detected. Appearance—masklike face noted. Gait—typical Parkinsonism. Urine—nil abnormal. Blood—B.P. 110/70.

Diagnosis.—Senile Parkinsonism.

Technique of injection.—On 30—10—'56 on the right side. Local infiltration anaesthesia. Point of injection $\frac{1}{2}$ " in front of the tragus of the ear and 1" above the helix of the ear. Vertical incision; burr hole made. Needle entered perpendicular to the plate of skull bone to a depth of $4\frac{1}{2}$ cms. from the bone medially by special technique evolved by Dr. K. C. Nambiar. 0.8 c.c. of absolute alcohol injected once the aimed site is arrived at after first injection 1 c.c. of 1% novocaine and verifying that no hermiparesis is produced due to injection into the internal capsule. If hermiparesis is observed, the needle is withdrawn $\frac{1}{2}$ cm. and then only alcohol injected. In this case immediate cessation of tremors observed on the left hand and mild hermiparesis also observed. The stoppage of tremors and disappearance of masklike face on the left side maintained for one month at the end of which the tremors re-appeared.

On 20—11—'56 *Injection on the left side* Some technique as before. Stoppage of tremors maintained for 20 days. Further observations are being made and a solution which will give a permanent destruction of globus pallidus is being looked for.

These injections are being carried after the work of Sprey and Wycis of America Okiyama and Narabayashi of Japan who have got very successful results after stereotoxic injection of alcohol into the globus pallidus for Parkinsonism.

A CASE OF LYMPHOSARCOMA MANIFESTING RARE SYMPTOMS

Case No. 2.—Name: Rajabathar, male, 22 years, admitted in Krishnaswami ward on 6—10—'56.

Complaint.—Extreme difficulty in breathing since 2 days. Very much increased since this morning. Swelling of the neck since 4 weeks. Advised hospitalisation 2 weeks ago but refused. Well-built adult male, dilated veins seen over the swelling of the neck. The swelling is diffuse, firm and fixed extends into the mediastinum also. Dullness in the region of the mediastinum and 1" on outer side of the mediastinum. X-ray chest confirms the evidence of mediastinal tumour.

In view of the severe and distressing dyspnoea which was almost varying on complete strangulation on the trachea, an endotracheal tube was passed as an urgent measure and the dyspnoea was instantaneously relieved. The result was dramatic.

Further investigations.—Urine—no albumin, no sugar. Blood—R. B. C. 4.5 mil/cmm. W. B. C. 14,000/cmm. Diff. count P. 62; L. 18 E. 20 and M. O. Hb. 70%.

The patient was kept on with the endotracheal tube *in situ* till 9—10—'56. He was getting nitrogen mustard injections daily once in addition to usual antibiotic therapy with Penicillin, Streptomycin and Achromycin. On 9—10—'56 it was decided to operate and decompress the root of the neck and the superior mediastinum.

Points from operation notes.—General endotracheal anaesthesia. Anterior sternum splitting operation mediastinum opened into and a diffuse granulomatous mass of about $\frac{1}{2}$ " in thickness was seen covering the structures of the superior mediastinum and extending into the root of the neck. All these were removed and sent for examination. The isthmus of the thyroid also divided. The wound was closed in layers with drainage tube in place.

The patient had an uneventful post-operative course. The endotracheal tube was removed the next day and the patient has had absolutely no dyspnoea till the date of discharge. The patient was given post-operative deep X-ray exposures and swelling in the neck has completely disappeared.

Path. report.—Lymphosarcoma.

Peculiarities.—The presentation of the patient with some dyspnoea for which some kind of a heroid surgery had to be done with very good results.

A CASE OF PARATHYROID ADENOMA

Presented from Dr. C. Raghavachari's unit by Dr. T. Ananthachar

The presenting complaint of this patient aged 20 was deformity of the lower limbs and pain in bones at rest aggravated by walking. Since the removal of the tumour the pain has disappeared. The deformity persists and has to be corrected by osteotomy, hereafter.

The complaint started two years ago. The bones of the right lower limb were the first to bend. This was followed by bending of the bones of the left lower limb. The deformity became progressively worse.

Clinical findings on examination.—The patient was admitted on 20—3—1956. There was a very marked knock-knee deformity. There was also antero-posterior bending of the tibia. The right patella was displaced laterally. Both tibiae were tender on palpation. There was considerable laxity of the ligaments of knee. In fact the deformity is much the same as is seen now. The tenderness over the bone however has disappeared.

The differential diagnosis was mainly between rickets of one form or other and hyper-parathyroidism. An X-ray of the skeleton was taken at this stage and the bones showed the typical picture of hyperparathyroidism. There was decalcification and pathological fracture running through the cortex.

X-ray skull: Lower jaw: Hand: Femur: Tibia fibula: K. U. B — I. V. P. nil abnormal. Stomach—Barium swallow.

At this stage the following investigations were done:

Serum calcium 14 mgm% 24 hr. calcium in urine-phos 8.32 mgm% 0.125 G. Alk. phosphatase 75.6 mgm% P—0.494 G. Blood urea—12 mgms% B P. 120/76. Urine—nil abnormal.

The diagnosis of hyperparathyroid tumour was confirmed by the biochemical findings. There was no visible or palpable tumour in the neck. A barium swallow was done to spot any pressure effects of the tumour on the barium filled oesophagus, but the findings were negative. A plain X-ray of the chest focussing on the mediastinum gave no useful information.

It was decided to explore the neck for the tumour and the first exploration was done on 11—4—1956. The thyroid gland was exposed and a search was made for the adenoma. It could not be located and it was decided to close the wound and re-open at a future operation with an idea of exploring the superior mediastinum if necessary. The diagnosis was further confirmed by re-estimation of serum calcium which was now found to be 18 mgm%.

At the second exploration which was done on 7—5—'56, the posterior layer of the thyroid capsule was deliberately incised and the search was made behind it. The parathyroid adenoma was spotted on the right side on a level below the lower pole of the thyroid, close on and with its long axis parallel to the right internal jugular vein so much so it required a little blunt dissection to show that it was not part of the vein. The tumour was $1" \times \frac{1}{2}"$ brownish in colour lobulated and soft in consistency. Histological section shows the arrangements of polyhedral cells with central dark staining-nuclei.

A biochemical analysis of blood and urine post-operatively confirmed the complete removal of the parathyroid adenoma:

Serum calcium 8.5 mgm%. Serum Phosphorus 3.5 mgm%. Alk. Phosphatase 38 units. Urine calcium (2 hrs.) 0.034 gms. Phosphorus 0.058 gms

In spite of oral calcium therapy in the post-operative period, patient had a typical attack of tetany on the 4th, 5th, 10th and 14th post-operative days which was promptly controlled by I. V. calcium gluconate.

Patient has relief of pain in the bones after the operation. There was no radiological improvement even a month after operation.

X-rays taken six months after the operation however show a distinct change. The bones show evidence of calcification.

It is now proposed to proceed with the correction of the bony deformities.

Discussion.—There has been no difficulty in the diagnosis of this case. The clinical finding of painful bony deformities together with the decalcification of the skeleton made out radiologically and the biochemical findings of increase serum calcium, phosphatase and increased excretion of Ca in the urine confirmed the diagnosis.

The case illustrates the following (1) the difficulty in spotting the tumour at operation. The guide to the adenoma is its blood supply from the inferior thyroid artery. Sometimes when the gland is not found within the capsule of the thyroid, the posterior layer of the thyroid capsule must be deliberately incised and search made behind the capsule as was done in this case during the second exploration. Arteriography of the inferior thyroid vessels has been advocated as an aid in the localisation of the tumour. (2) It illustrates the fact that the symptoms (bony pain in this case) disappear soon after removal but it will be a long time before any change is perceptible in the X-ray picture sometimes as long as two to three years.

As regards the prognosis the ultimate prognosis should be guarded particularly if the duration of the disease has been long since permanent renal damage might have occurred.

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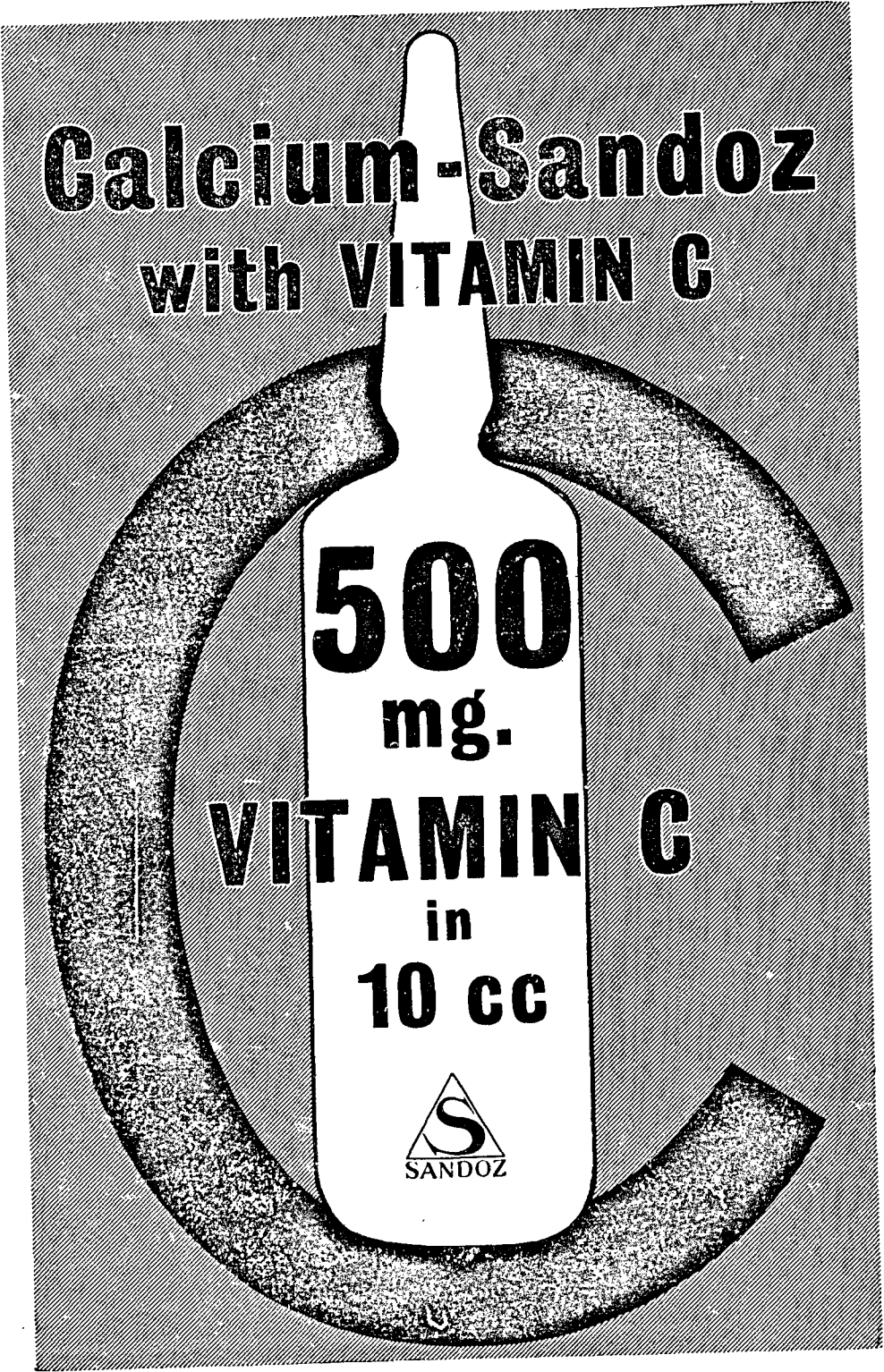
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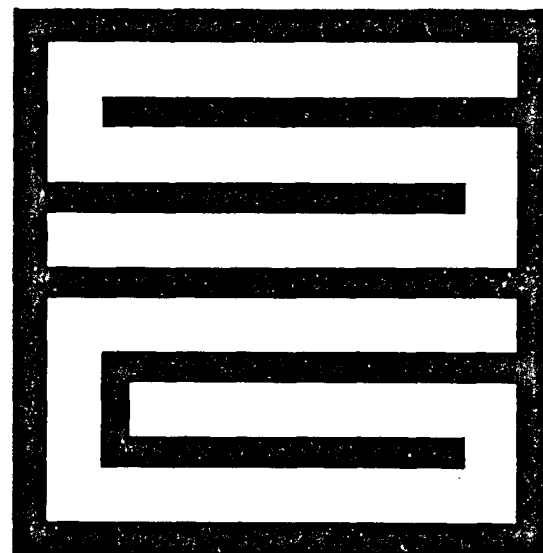
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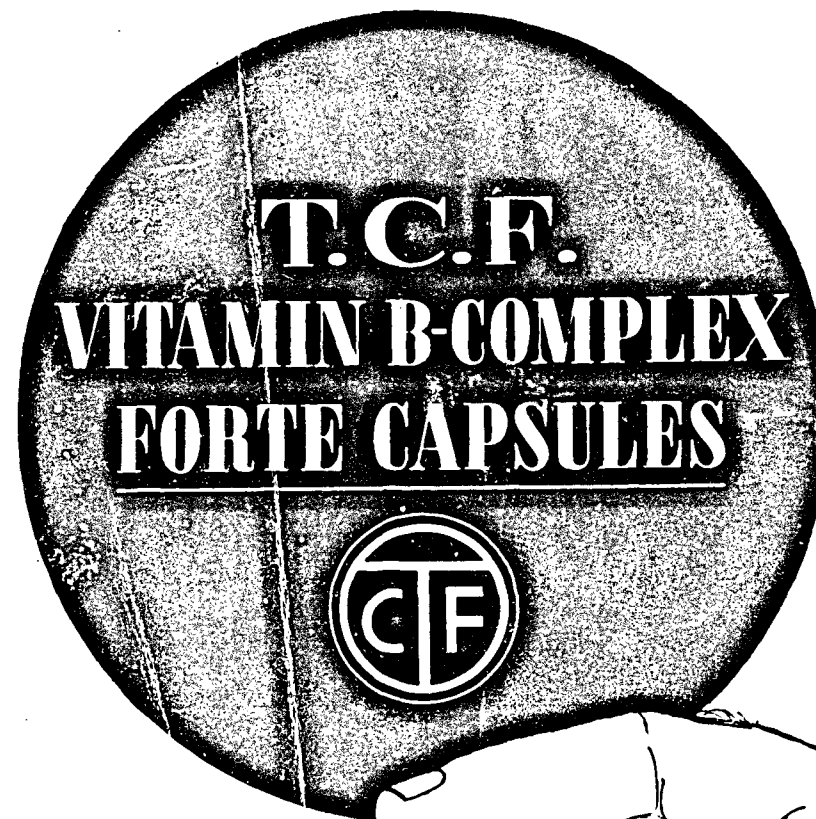
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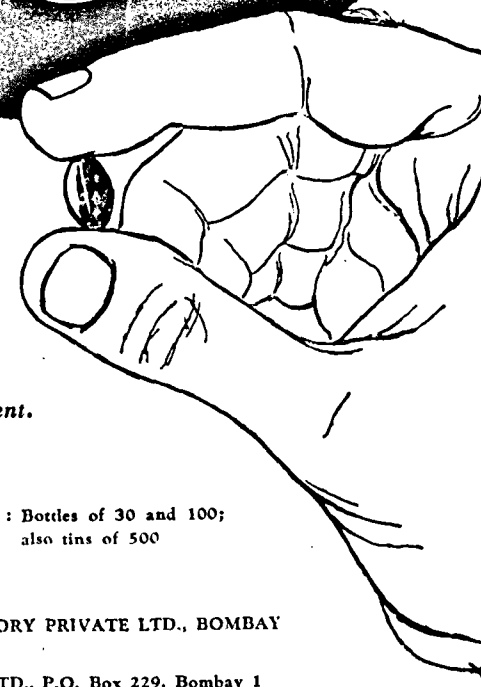


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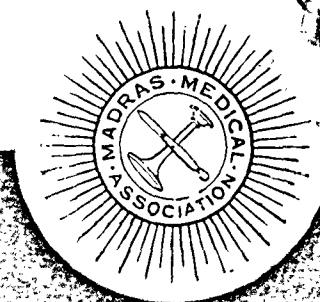


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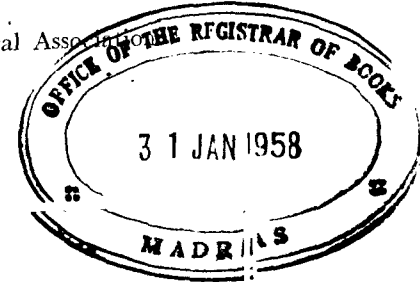
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Vol. 1

OCTOBER 1957

No. 2

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The Journal welcomes scientific papers on all subjects coming within the purview of medical science, and topics concerning medical education or of interest to the medical profession. Papers from non-members of the Association must be communicated by a member.

Manuscripts must be typewritten on one side only of the page, double-spaced, with ample margin and should not be offered to any other Journal for prior or simultaneous publication. Ordinarily papers should not exceed 12 pages of foolscap Mss. and authors are requested to condense their manuscripts as much as possible.

Clinical photographs, skiagrams and photo-micrographs should be printed on contrast glossy paper and sent unmounted, or if mounted, colourless paste should be used. All diagrams and graphs should be drawn with waterproof Indian ink on white drawing paper or Bristol board.

References to literature in the text should be given in accordance with the established international system followed in the cumulative medical index.

The galley proof will be sent to authors for correction and should be returned corrected with the least possible delay. Authors must not make any change in the text of the manuscript at the proof stage.

Authors will be supplied with 25 copies of reprints of their papers gratis. If extra copies are required, they could be had at a small additional cost on intimation at the time of returning the galley proof.

All communications pertaining to publication of papers in the Journal should be addressed to the Editorial Secretary.

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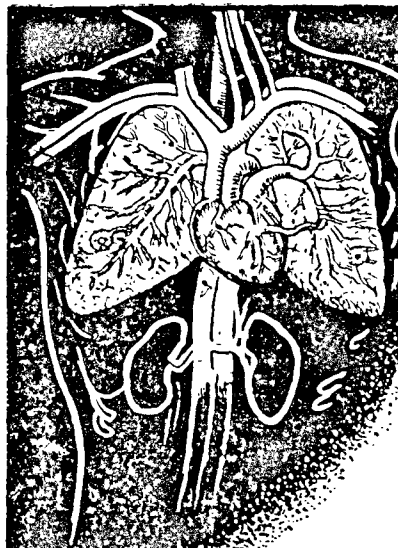
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CONTENTS

	Page
1. Diagnosis and management of coronary thrombosis ...	1
Dr. R. Subramaniam	
2. A case of typhus fever ...	13
Dr. M. G. Prabhu	
3. The management of strangulated inguinal hernia ...	17
Dr. A. Umapathy	
4. Effect of chronic fluorine ingestion on human skeletal tissue ...	25
Dr. T. Janardhanan and Dr. T. J. Venkaswamy	
5. Clinical reports—	
Govt. Women & Children Hospital ...	35
Govt. Ophthalmic Hospital ...	45
Govt. Mental Hospital ...	52
6. Association Notes ...	57

The Editor does not hold himself responsible for the opinions expressed by the different contributors.

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EDITOR.



Dr. V. R. THAYUMANASWAMY, M.S., F.R.C.S., M.Ch.,
Retired Member of Madras Medical Service, appointed Director of Medical Service, Madras.



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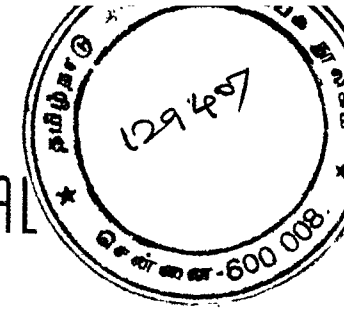


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Dean, M. M. C. and G. H.



Lt.-Col. C. K. PRASADA RAO,
Retired Dean, M. M. C. and Govt. General Hospital and Ex-Secretary, M. M. A.

EDITORIAL



THE PAST, THE PRESENT AND THE FUTURE

IT is with deep regret that we record the sad demise of our beloved Governor Sri A. J. John on October 1, 1957. We associate ourselves most sincerely with the expressions of sorrow and the tributes paid to the late governor by the legislators and innumerable others from all over the State.

The Madras Medical Service deeply mourns the loss of Professor Govinda Menon, M.B.B.S., M.Sc., of the Anatomy Department, Madras Medical College and Dr. B. T. Krishnan, M.B.B.S., M.Sc., Retired Professor of Physiology, Madras Medical College.

Our respected Chief of the Service, Lt. Col. Sanghamlal, I.M.S., D.M.S., laid down office.

We sincerely acknowledge with gratitude all the help given to the service during his period and wish him all happiness and well earned rest in his retirement.

We thank him for his timely reminder on the eve of his retirement that we had all along survived on past reputation and that we should carve out a creditable programme for the present and the future.

21/11/57
157-1

He pointed out also how recently-sprung-up colleges and medical services of other States had shown a remarkable progress and made so many contributions in the medical sphere, stressing on our part that we will continue to progress from where our predecessors had left noble records.

* * *

Dr. C. K. Prasada Rao, our popular Dean retired, to have a restful sojourn at the place of his birth, after a strenuous and record period of five years in office.

The plants and the paints, the tablets and the foundation stones laid during his tenure of office will constantly bespeak his workmanship in the campus.

* * *

Dr. C. Raghavachari, Surgeon and Dean of Stanley Hospital, revered as a great teacher and beloved of the student population has left us to take up the noble task of training the medicos of Kerala and we wish him every success in his arduous task.

Yet another Dean has retired from the College of Integrated Medicine. In Dr. A. Srinivasalu Naidu there was a champion who delighted in placing indigenous medicine on par with other medicine. The college now is an envy of the sister colleges for the upto-date equipment it possesses.

RETIREMENTS:

Prof. D. S. Iyer.	Prof. R. Mahadevan.
„ A. S. Johnson.	Dr. Y. S. Narayanrao.
„ K. C. Jacob.	„ O. C. Madhavan.

To each one of these and to the many D.M.O's and A. D.M.O's who have unostentatiously laid down office in the mofussil stations we offer our best wishes for a happy retired and long life of greater usefulness in other spheres.

Sri. M. A. Manickavelu, Hon'ble Minister for Health, has ever since his ministership proclaimed the need for enhancing the emoluments of the medical officers in keeping with the scales of pay of similar officers in other state services. Within the short period of office he has shown very keen interest in improving the service conditions. For these and many other improvements contemplated we are grateful.

* * *

We are proud to have the privilege to offer our respectful felicitations to our revered Vice Chancellor who has once again been entrusted with the noble task of captaining the University Ship in the midst of troubled waters. We have in our Ex-President, Sir A. L. Mudaliar, all confidence and we offer him our respectful wishes for a very successful voyage.

* * *

None can appreciate the importance of timely and appropriate reinforcement, replacement or removal of a weak link or joint in a structure for the maintenance and/or improvement of function, as the erstwhile Orthopaedic Surgeon who luckily for us, has been entrusted with the burdensome task of directing our service.

We wholeheartedly and respectfully felicitate Dr. V. R. Thayumanuswamy and assure him that we on our part will do our utmost to make his task easy and fruitful.

* * *

We welcome the following officers who have been appointed to hold responsible posts in the service; while tendering our respectful congratulations to them we also wish them the best of success in their new offices:

Dr. K. P. Sarathy	...	Asst. D. M. S.
„ R. G. Krishnan	}	Deans.
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„ S. Latif Khan		
„ S. Govindarajan	...	Director, King Institute, Guindy.
„ Parthasarathy	...	D. P. H.

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„ T. George	...	Superintendent, Mental Hospital.
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Mrs. Abraham	...	Superintendent, W. & Ch. Hospital.
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„ S. T. Achâr	...	Director, Inst. of Pediatrics.
„ Sadasivam	...	Surgeon, Thoracic Unit, G. H.
„ K. G. Krishnaswamy.	...	Prof. of Surgery, M. M. C.
„ R. Subramaniam	...	Prof. of Medicine, M. M. C.
„ Prabhu	...	Prof. of Therapeutics, M. M. C.
„ T. Janardhanan	...	Prof. of Anatomy, M. M. C.
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„ Asirvatham	...	Prof. of Jurisprudence, M. M. C.
„ M. Natarajan	...	Reader in Orthopaedics, M. M. C.
„ C. Satyanarayana	...	Reader in E. N. T., M. M. C.
„ Mrs. Sharma	...	Prof. of Hygiene, M. M. C.
„ A. R. Govinda Rao...	...	Prof. of Pharmacology, M. M. C.
„ A. L. Annamalai	...	Lecturer in Principles of Medicine, M.M.C.

Transfers that are inevitable and form an integral part of the function of our service have shifted a few of our members from place to place in the State. All grades have been so affected and we assure them all that distance cannot stifle or lessen our interest in them.

Aside from a review of ourselves it may be worthwhile recalling the wave of influenzal epidemic that swept through our country soon after our last publication of the journal. The rapidity with which the infection took toll by way of morbidity among our population and the large numbers that were so incapacitated in each home at one time alarmed the profession and the service most. Fortunately the wave has receded just as soon as it had enveloped our population. Whether the credit goes to aspro boomed on the radio or elkosin resuscitated by the press or even the broad spectrum antibiotics prescribed by the practitioners, the epidemic came under check.

While the massive, spectacular, nationwide disaster caused by the recent influenzal epidemic spurred the different bacteriologists, local and foreign, into feverish activity towards identifying the etiologic factor, the subsidence of the wave has seemingly plucked out the enthusiasm from some of them. Nevertheless the virus has been identified and a vaccine has been prepared for prophylactic use as well. Information available is that the quantity prepared cannot go round to serve the whole population in an emergency. It seems as though its use has to be restricted solely to those who are put on control duty in an epidemic. Be that as it may, the virus vaccine, wanting in quantity, can be made up by indents from other countries, in times of need.

It is not the influenza virus that worries us now so much. Our thoughts wander around the viral affections of the brain and the spinal cord, the liver and the genito-urinary system of several patients, young and old, in whom other plausible causes have been excluded.

Coccal, bacillary and spirochetal causes have so far been effectively brought under control, though of course the fear of antibiotic and chemotherapeutic resistance developing on the part of staphylococci, has recently been stressed by a visiting Professor from America, Prof. Bennett.

The medical profession cannot easily identify viruses in smears stained in the routine manner. The ordinary microscope cannot help, though special staining procedures, Machiavello and Castaneda are claimed to bring out the nature of the disease in ultra violet light even with the ordinary microscope. The electron microscope is not with us.

In the absence of aids towards direct demonstration of viruses we have to fall back on other resources, those of tissue cultures, yolk sac or chorio-allantoic membrane inoculation in a chick embryo, mouse brain inoculation or rabbit's corneal scarification.

Where these facilities do not exist one may have to rely on serological tests for the identification of reactive substances elaborated in the tissues through the complement fixation technique or skin tests with appropriate viral antigens.

Our country has started the study of virology in a quiet way under the auspices of the I. C. M. R. and has several research centres established. The help required of them is enormous and a network-liaison has to be effected and maintained between the service and the centres.

Unlike a sero-bacteriologic laboratory, the establishment of a viral laboratory is fraught with a large expense. But the cost cannot stand in the way of service.

If the service can be roused to focus attention on viruses and we bear in mind that we are on the threshold of the virus age and should get ready to adapt our thoughts to meet the situation, we will be making a right start.

A chair of virology has recently been established in a British University at a great cost.

Money spent on virus control will not go in vain. Uptodate knowledge of the viruses regarding their identification and control, both by way of prophylaxis and cure of the patients stricken with them will give the nation freedom from viral affections.

Blindness, deafness, brain and spinal cord affections, liver and genito urinary affections traceable to viral etiology will become a thing of the past. Let us be prepared to play our part in the virus age.

P. N. Rangiah.

MADRAS MEDICAL REGISTER

It is very essential that in the interests of both the Practitioner and the Medical Council, the Madras Medical Register should be up-to-date in all particulars relating to the Practitioner entered there in, including his address and qualifications. In connection with the recent elections held in November 1956 to elect 7 members by the Registered Practitioners, nearly 9200 Ballet papers were sent, out of which, 1220 were returned as unknown or dead by the Post Office. Several requests were received to send ballet papers from individuals whose address did not agree with the one found in the 1955 Medical Register which served as the electoral roll and it was not possible to comply with their request as ballet papers had already been issued as per the printed address in the register. To avoid a repetition should any election take place in the near future and also to serve as a useful guide to the pharmaceutical firms which utilise the Register for sending medical literature the Registrar, Madras Medical Council, Madras-6, earnestly requests all the registered practitioners to drop a card immediately giving particulars about their full registered name, and number and address. They may also register any additional qualifications since secured.

Office of the Madras Medical
Council, Madras-6.
18th July 1957.

K. K. SHENAI,
Registrar, Madras Medical Council.

ANNOUNCEMENT

Members are informed that a few pages of the Journal will in future be set apart for "SERVICE PROBLEMS". The names of contributors wherever necessary will be kept confidential.

Contributions by way of articles, advertisements, clinical reports, letters to editor etc. will be received by the Editorial Secretary for the next issue of our journal.

Editorial Secretary,

M. M. A.



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Diagnosis and Management of coronary thrombosis

Dr. R. SUBRAMANIAM*

B.SC., M.D., M.R.C.P. (LON.)

“Of all the ailments which may blow out life’s little candle, heart disease is the chief.” (Boyd)—This constitutes one of the four common organic diseases of the heart—the other three being rheumatic disease, sub-acute bacterial endocarditis and hypertensive heart disease.” (Boyd).

INTRODUCTION

There are few diseases more dramatic in their manifestations than coronary thrombosis. Sudden death is common in this, with the result the older clinicians were reluctant to diagnose coronary thrombosis when man complains of precordial pain and survives the same, whereas in cases of precordial pain and the sudden end, coronary thrombosis, is usually diagnosed. Today the position is very different. It is being increasingly recognised, with the result, it is increasingly spotted all over the world and even in India almost the same obtains. Going through the records of the G. H. the incidence of coronary thrombosis from 1946–56 is on the increase (*vide* statistics furnished below). There is also increase in the incidence of C.T. from 1951–56 in my wards as is evident from the statistics furnished below. All these show there has been a steady increase in incidence of coronary thrombosis. It is not merely the disease is recognised but also the disease as such is increasing in its incidence because the age of survival is steadily increasing the world-over due to better sanitation and better preventive measures.

*Professor of Medicine, Madras Medical College, Physician, Government General Hospital.

STATISTICS:**Govt. General Hospital:**

		<i>Coronary thrombosis</i>	
		<i>Total</i>	<i>Dr. R. S. Unit.</i>
1946	...	28	...
1947	...	30	...
1948	...	26	...
1949	...	23	...
1950	...	20	...
1951	...	46	22
1952	...	48	18
1953	...	57	27
1954	...	59	28
1955	...	57	20
1956	...	76	28

Of the many cardiac emergencies that may be met with in practice coronary thrombosis is the outstanding emergency. In the large majority of cases there is a history of chest pain; as a rule the pain is excruciating and is also incapacitating. The pain is so severe that the patient is restless and goes into a state of shock. The pain may occur in the precordium or the right side of chest or it may radiate to the right or left shoulder or it may radiate along the sides of the neck, to the under-surface of the jaw. Sometimes the pain may be felt in the back either in the left inter-scapular region or right inter-scapular region and rarely it may be felt in the epigastrium or in the right hypochondrium. The picture that is particularly distinctive of coronary thrombosis is irrespective of the site of pain that the patient complains of there is always a dull sub-sternal pain. This wide variations with regard to the site of pain accounts for some of the common mistakes that occur in the diagnosis of coronary thrombosis. For instance the pain when it occurs on the right side of chest may be mistaken for a pleural discomfort so also with pain in the right hypochondrium may be taken for a biliary colic. The pain in the epigastrium may be mistaken for an acute abdomen like perforation of the gastric or duodenal ulcer. In the case of coronary thrombosis a peculiar ashy-appearance of the face

occurs which is very easily made out in a fair-skinned individual though even in darker coloured people when one is familiar it is not easy to miss. Apart from this characteristic facial appearance, what is most outstanding is the extreme restlessness, the patient does not lie flat even a little while, and about a day or two later low fever sets in and it is said a few rales are occurring over the left base though the adventitious may be heard on the right side as well. At this phase of illness these cases are likely to be mistaken for Pneumonia. More than once I have had occasions to watch cases being admitted into the ward particularly in the elderly men, as pneumonia because they have fever ranging from 100-101. To avoid mistakes in these cases, a thorough-going history is necessary and to supplement it E. C. G. should be taken. In the case of anterior myocardial infarction the precordial rub may be heard but it is not a constant feature and even if it occurred it might be transient in character. Sometimes the precordial rub may persist even as long as 48 hours.

Sudden death occurs in about 25 per cent of all cases of coronary thrombosis. It is believed sudden death is due to blockage of a major vessel or ventricular fibrillation—the more common thing is for cases to survive. Cases that survive for purposes of clinical consideration are divided into two groups—“severe” and “less severe or moderate” cases. The division is mainly clinical and is more or less on arbitrary consideration. The severe ones are associated with large infarcts and less severe ones with smaller infarcts. The infarct may take place either abruptly resulting in a sudden or acute onset of symptoms or slowly when the symptoms will be spread over some days or even weeks. The infarct may also occur by an extra load in a vessel which is already sclerosed, *i.e.* a person who is already suffering from coronary insufficiency or anginal attacks. He may strain himself physically and may precipitate coronary thrombosis. In one of my cases of coronary insufficiency with fairly typical symptoms he took saline purgative with the resultant dehydration of a moderate degree and precipitated coronary thrombosis from which he did not recover. Sometimes a drop in

B. P. may be brought about by indiscriminate use of antihypertensive drugs particularly when given by a needle is likely to precipitate thrombosis so also dehydrations that occurs in the course of cholera. Generally thrombosis is not likely to occur in a healthy vessel. It occurs in vessels in which the intima is damaged. Peri-arteritis and traumatic arteritis may also give rise to thrombosis. Since damage to intima is likely to occur in the presence of diabetes and syphilis, these two diseases must always be thought of when patients present themselves for coronary thrombosis particularly diabetes mellitus. It is believed proliferation of the intima occurs which partially occludes the lumen of the vessel, favouring thrombus formation or rupture of the small intimal vessel in the atheromatous patch gives rise to thrombosis, which eventually occludes the vessel or causes the sub-intimal haemorrhage from vaso-vasorum may raise the intima. The intima is raised in the atheromatous flap and when it is elevated it favours thrombus formation and it is a matter of time before thrombus occlusion occurs. So long as the lumen is patent no symptoms occur or symptoms of coronary insufficiency or anginal attacks may occur and once final occlusion takes place when the symptoms occur and depends on whether the collateral circulation has been established or not. If there is good collateral circulation coronary thrombosis is mild or moderate. If the collateral circulation is poor where the vessel is occluded, are they are end-arteries the symptoms are "very severe". In good collateral circulation in spite of occlusion there may not be symptoms of infarction whereas with a poor collateral circulation infarction may take place. Rarely coronary thrombosis may occur with symptoms of pain but may be characterised by symptoms of shock and collapse or pulmonary oedema may occur. Cases without symptoms of pain are usually missed and they can only be spotted by the use of E.C.G. This is likely to be suspected by the fact that the patient has got hypertrophy of the left ventricle and the X-ray picture is suggestive of hypertensive heart failure but the pressure that is recorded is often low. Under these circumstances one should make it a point to investigate all the cases with E. C. G.

The reason why the pain is absent in some cases is due to shock preventing the man from appreciating the pain. The symptoms, these patients are likely to complain of are giddiness, dyspnoea, state of pallor or G. I. symptoms or belching or vomiting. These are called substitution symptoms or these may be the only symptom. A few hours after the onset of coronary thrombosis the B.P. starts falling down. The fall of B.P. is a useful diagnostic aid—a steady fall of pressure below 100 systolic and below 50 diastolic is a grave sign whereas in cases where the pressure is kept up and shows very little tendency to fall carry good prognosis.

In some cases there may even be an initial rise in pressure for 8 to 12 hours and then the fall starts; in 24–48 hrs. a low fever sets in. This fever is due to absorption of the thrombus. With the onset of fever leucocytosis occurs and the E. S. R. is raised. In a vast majority of cases characteristic E.G.C. changes occur at the end of 24 hrs.

Complications.—Less common complications that may be met with are pericarditis. Generally this occurs at the end of the first day but it may be delayed by 48 to 72 hrs. Exceptionally this may occur at the end of second week and it is very unusual—for it to be delayed so long. It is not a very important complication but the importance of this complication lies in the fact it is likely to cause anxiety to the attending physician and to the patient and his relations. Because here also the pain being a constant feature the question arises whether it is a fresh attack or an extension of the previous thrombosis. Usually with the onset of pericarditis there is a small elevation of pressure and the pain itself is of a dull-aching character. Patients themselves are able to distinguish often enough the pain due to pericarditis from the previous pain that they have had due to infarction. In a good percentage of them pericardial friction rub may also be heard. The site to look for pericardial friction rub is along the edges of the heart. The pain in cases of pericarditis does not generally radiate and it is maximal in the area where the pericardial rub is heard. E.C.G. shows the characteristic changes of pericarditis. It is not always easy to make out the pericarditis when it is occurring in the course of

coronary thrombosis by means of E.C.G. as it is likely to be masked by the previous coronary thrombosis pattern.

One of the troublesome complications that one meets in the course of coronray thrombosis is cardiac arrhythmias particularly paroxysmal tachycardia or numerous ventricular extrasystoles or auricular fibrillation. It is with a view to check this irregular heart action one school of cardiologists advocate quinidine to be given as a matter of routine in all cases of coronary thrombosis. Since the incidence of cardiac arrhythmias is not so common there is no meaning in giving the drug which may have serious side-effects like quinidine as a matter of routine. Quinidine can always be started as and when cardiac arrhythmias sets in. A better drug than quinidine is procainamide available under the trade name Pronestil (Squibb). This tablet can be given one thrice a day after food and the advantage being they are not likely to cause adverse side-effects as commonly quinidine is likely to do. Another drug that may be used with advantage is mepacrine 0.1 gm. tablets one t.d.s. This also has comparatively very little toxic effect as compared to quinidine.

Less frequent but a serious complication that one may meet with is embolic manifestation. This embolic manifestation may occur as a result of mural thrombi getting dislodged and being carried by the systemic circulation. This is likely to occur after the 4th or 5th day of the myocardial infarction. During the course of coronary thrombosis one may meet with pulmonary oedema or embolism. These are likely to occur as result of complete immobilisation causing peripheral venous thrombosis. This peripheral venous thrombi get dislodged and are carried by the venous system to the right side of the heart and from there to the lungs. This pulmonary embolism is rather a late manifestation occurring at the end of second or third week after the onset of coronary thrombosis. Here again the temperature may occur and the temperature usually is on the range of 100 to 101 and be never high. X-ray appearances are like that of rounded shadows which may vary in shape from day to day.

TREATMENT

Success of treatment consists in prompt attention and quick relief of pain. It is the unrelieved pain that leads to shock and shock causes peripheral vascular failure and death. So to relieve the pain $\frac{1}{4}$ gr. of morphis is given I.V. in severe cases and I.M. in moderate cases. When morphia is given I.V. a cardiac analeptic like Verital is given I.M. and where morphia is given I.M. It is combined with atropine 1/100 gr. The object in giving morphia I. V. in the severe cases is to bring about relief of pain quickly. As the circulation in these cases is so poor that if the drug is given I.M. the absorption may considerably be delayed and the pain may get worse. Usually an injection gives relief for six to eight hours but where the pain recurs there should be no hesitation in giving this drug every 2 hrs. Morphia almost never is the cause of death in coronary thrombosis. It is always the unrelieved pain and the attending shock that kills the patient. The amount of morphia that is needed in 24 hrs. is a good guide to the prognosis. Though the drug may be given every 2 hrs. where more than six or seven injections are needed in the course of 24 hrs. the prognosis must be considered as grave. In all the cases which have recovered under my care they did not need more than 3 injections in the course of 24 hrs. and in 50% of them they did not have even 3 injections. Very rarely with one injection pain was relieved for 24 hrs. As many people are sensitive to morphine, Pethidine 100 mgm. can easily replace morphine. Though it is said pethidine is not likely to cause vomiting, I have had cases vomiting even with pethidine but the incidence of vomiting is definitely less with pethidine than with morphine.

Except in the mildest of cases oxygen inhalation is of great value. The best way to administer oxygen is to give oxygen in an oxygen tent. Since it is not available except in very large institutions the next best thing will be to use a B.L.B. mask. Where this even is not possible it may be given by a nasal catheter passed well up to the nasopharynx. As the catheter is likely to irritate when passed upto this distance it is advantageouse to apply over the

catheter a local anaesthetic agent like nupercaine ointment. Often times the objection for oxygen administration is coming from medical men or from the patient or his relatives. In many cases on account of the psychological fear that is likely to occur the patient medical men are averse to start the patient on oxygen except in very bad cases. This is a condition in which there is no place for respecting the psychological aspect but the patient must be treated energetically. As a matter of fact early administration of oxygen cut out the pain and so reduces the amount of morphia that is needed to give relief of pain.

There is an acute controversy in the West about the complete immobilisation or early ambulance with regard to coronary thrombosis. Conditions in this country are such that early ambulance is not desirable. The fear of cardiac neurosis as a result of complete immobilisation is unlikely. In this country the economic conditions are so bad that even if we advocate complete immobilisation they are not likely to follow it strictly to the letter as they can ill-afford to rest longer than what is absolutely necessary. So we should not advocate early ambulance as it might prejudicially affect the case. In all severe cases it is worthwhile to start the patient on anti-coagulants. Anticoagulants can be given apart from severe cases even in cases where thrombosis has occurred at more than one site—cardiac and cerebral thrombosis or coronary thrombosis itself occurring at short intervals, or coronary thrombosis with complications listed above like embolic manifestation or cardiac arrhythmias. We usually use ordinary heparin 5000 units in the first dose. The total dose is 12500 units for the first day and thereafter it is given every 4 hrs. The clotting time is determined before the injections are started and it is determined in the following day. It should not be longer than 20 min. and if by any chance it is longer than 20 minutes heparin administration is delayed for sometime till the clotting time returns approximately to 20 min. This 20 minutes is on the basis that the normal clotting time is 6 to 8 minutes. At the same time as the patient is put on heparin, he is also started on coumerol derivatives. We have been using for the last two years either

Tromexan (Geigy) or Marcoumar (Roche). These are quick acting derivatives and they are rapidly getting absorbed in the G.I. tract. Generally their action is felt between 18 to 30 hrs. and their action ceases roughly 18 hrs. after stopping the drug. In the last two cases of mine where tromexan was used one case developed hamaturia and in another case Malaena occurred, though prothrombin time was only twice the normal. The strength of tromexan is about 1/5th strength of dicoumerol and the dosage is about 5 times that of dicoumerol. Marcoumar is about sixteen times as strong as dicoumerol and so 3 mgm. can be used in place of 50 mgm. of dicoumerol or 500 mgm. of tromexan. With the administration of any of these anticoagulants, prothrombin time should be determined daily. Prothrombin estimation kits are available with the various manufacturers of anticoagulants and the administration of anticoagulant should never be without simultaneous estimation of prothrombin time. It should be kept round about 30 to 35 seconds to obtain the best therapeutic results. If the prothrombin time is round about 30–55 seconds embolic complications are avoided. More than once we had recoveries in cases which were desperately ill particularly where congestive heart failure complicates coronary thrombosis, the results are extremely satisfactory, with the use of anticoagulants. Anticoagulants are contra-indicated in persons of liver diseases or where the subject has been known to be suffering from a bleeding diathesis. The action of anticoagulants is enhanced in persons of hypoproteinaemia, starvation, malignancy of pancreas and liver and in acute alcoholism.

When broad-spectrum antibiotics are administered, one should be very cautious in the administrations of anticoagulants. Vitamin K deficiency may be brought about by these antibiotics. Administration of salicylates may accentuate the action of anticoagulants, so also acute alcoholism. The present position is in spite of adequate laboratory control still it is not cent percent a safe procedure. Bleeding may occur at any time and if bleeding does occur the only way to control it is to administer

Vitamin K₁ (Konakion-Roche) to be given I.V. Stop further administration of anticoagulants and administer fresh blood I.V. preferably atleast a pint. Konakion is not available in this country.

Where diabetes mellitus complicates coronary thrombosis if there is no acidosis insulin is not given. It is not given in acute phase but once the acute phase is over the patient may be given Crystalline insuline s.c. but the dose of insulin should never be such as is likely to precipitate hypoglycemic manifestations.

Alcohol may be used as a vasodilator and as a soothing agent during the course of acute myocardial infarction. The best way to administer the same is as whisky and soda. Alcohol is a convenient agent and it provides a quickly absorbing media of good calorific value. Apart from its vasodilator effect it has got a tendency for a central sedative action which is very useful in the treatment of coronary thrombosis. Papaverine is also useful to control spasm of the peripheral vessel as well as the coronary vessel. Its use is important in the treatment of peripheral vascular spasm. It may be used as a very good adjuvant to morphia or pethidine and the dose is 0.1 gm. I.M. for 10 to 12 days. Another drug which may be used with caution is Aminophyllin 0.25 gm. I.V. This has got a vasodilating effect on the collateral anastomosis but there may be sensitiveness on the part of the patient and so it is best given I.M. 1 c.c. and if there is no adverse effect it may be given I.V. Even then it should be given slowly taking about 10 minutes for 10 c.c. of 0.25 gm. of the drug.

Digitalis is not as a rule indicated, in the treatment of coronary thrombosis but one should not hesitate to use the same with the onset of failure. The use of digitalis is particularly of value not only with the onset of failure but also in the treatment of paroxysmal supra-ventricular tachycardia. In the treatment of nodal and ventricular tachycardia Pronestil or quinidine is the drug of choice. Convalescence should be slow

particularly in severe cases. Six weeks of bed rest is the minimum that should be observed by all cases. Longer periods in more severe cases and in no case it should be less than 4 weeks. After the first two weeks are over the patient is allowed to have a pillow every week so that by the end of six weeks he reaches the sitting posture and at the end of the period he may become ambulant within the room and 12 weeks (6 plus 6 weeks) from the primary attack he may be allowed to move about on the level ground.

Diet.—During the acute phase of illness the ideal diet is to starve the patient so that the gastric distension and the extra work is kept at a minimum. With this in view patient is asked to take for the first 24-48 hrs. small quantities of glucose and orange or tomato juice. At the end of 48 hrs. he may be given 2 to 3 oz. of citrated milk or skimmed milk or de-fatted butter milk with conjees added to it. 4 or 5 days later when symptoms have come down he may be allowed semi-solid food and another 4 or 5 days later he may be allowed solid food. Till then he is not allowed to become ambulant. The diet should be free from excessive use of leafy vegetables like cauliflower, cabbage, etc. as they are likely to cause flatulence. It is advantageous to put the patient on a digestive enzyme, to cut down the flatulence. It is wise to start the patient even from the beginning on small dose of liquid paraffin or an emulsion of liquid paraffin at bed time. The object is to have the bowels open without much exertion on the part of the patient. Morphia has got a tendency to constipate and this also can be neutralised by this procedure to some extent. If inspite of this at the end of 72 hrs. there is constipation, a low glycerine enema may be administered. This may be repeated every 48 hrs. if need be. To ensure adequate sleep the use of phenobarbitone or paraldehyde is advocated. The success of treatment depends upon rest, in the early case of illness, with very low diet and the use of anti-coagulants in serious cases. In the later phase by taking bed-rest in the middle of the day for half to one hour and by taking periodic week-end rest and also spending more hours in bed.

SUMMARY

1. The incidence of coronary thrombosis is on the increase as shown by the statistics and by experience.
2. Important diagnostic features are mentioned.
3. Some of the common complications are dealt with and the treatment outlined emphasizing the need for bed-rest, relief of pain by analgesic drugs like morphine and pethidine and the place and value of anti-coagulants.

ACKNOWLEDGMENT

I thank the Dean, Govt. General Hospital, Madras and the Director of Medical Services, Madras for having permitted me use the hospital materials and for publishing this article.



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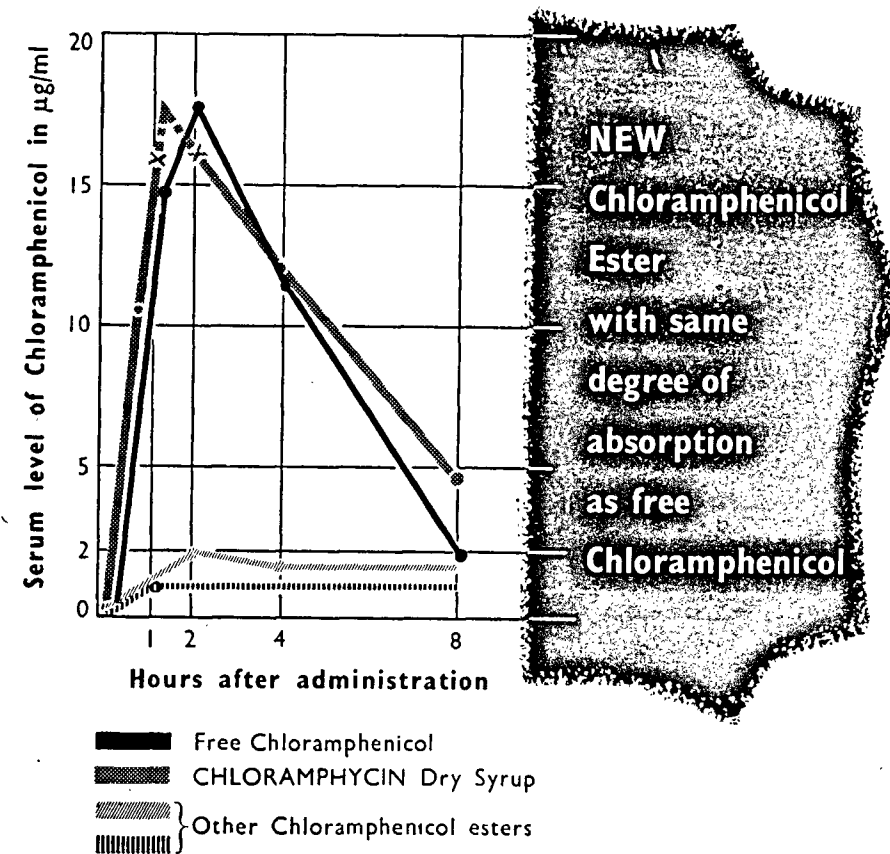
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A Case of Typhus Fever

Dr. M. G. PRABHU, M.D.*

INTRODUCTION

Typhus fever appears to be rather rare in India. The first reports were according to Eyre on cases admitted into His Majesty's Hospital, Gooty (India) in the year 1808. Basu (1924) reported 15 cases from Calcutta which he considered to be typhus fever. About twenty years ago Col. McRoberts and Dr. Govinda Reddy described cases of Typhus fever diagnosed in the Government General Hospital, Madras. Many of these cases were in men who have returned from Malaya or Burma where typhus fever was endemic. Some of them were seamen with their ships calling as Rangoon, Penang or Singapore and the source of infection was thought to be from Burma or Malaya. Later cases from Hyderabad-Deccan, Ajmer, Jubbulpur and Lucknow were sporadically reported. Then came the war and during the war, a number of cases of typhus fever were seen in Assam and Eastern part of Bengal. At this time a mass of refugees came trekking along the coastal route *via* Chittagong, and Imphal route through Dimapur. These streams of migrating humanity possibly brought more typhus fever to Assam, and East Bengal. During the Kashmir campaign about eight years ago, when the Indian army first went into the Kashmir valley it reported cases of typhus fever from Kashmir. It appears that typhus fever is endemic there and is sometimes called Himalayan fever. Mathur¹ (1954) reported a localised outbreak of typhus fever from Simla in December 1952 in which 20 persons were affected and 2 died. Prabhu M. G.² reported a case of serologically proved case of Tick typhus from Madras Government General Hospital in a patient from Vaniyambadi.² Vaniyambadi is a town about

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128 kilometers to the West of Madras, and the patient had never left Vaniyambadi at any time and the longest journey he had undertaken was to come to Madras for treatment. Hence it was inferred that Vaniyambadi is probably an endemic focus.

The description of a recent case of typhus fever based on Weil Felix test is presented below.

CASE REPORT

S, is a 19 year old boy, living with his parents at Vepery (Madras city). He attends a local college. He has never been out of Madras. His health was fairly good and his parents were healthy. On 2nd August 1956, he had sudden fever and he was put to bed. He complained of severe frontal headache and rather vague pains all over the body. His appetite was poor, he was constipated and his micturition was normal.

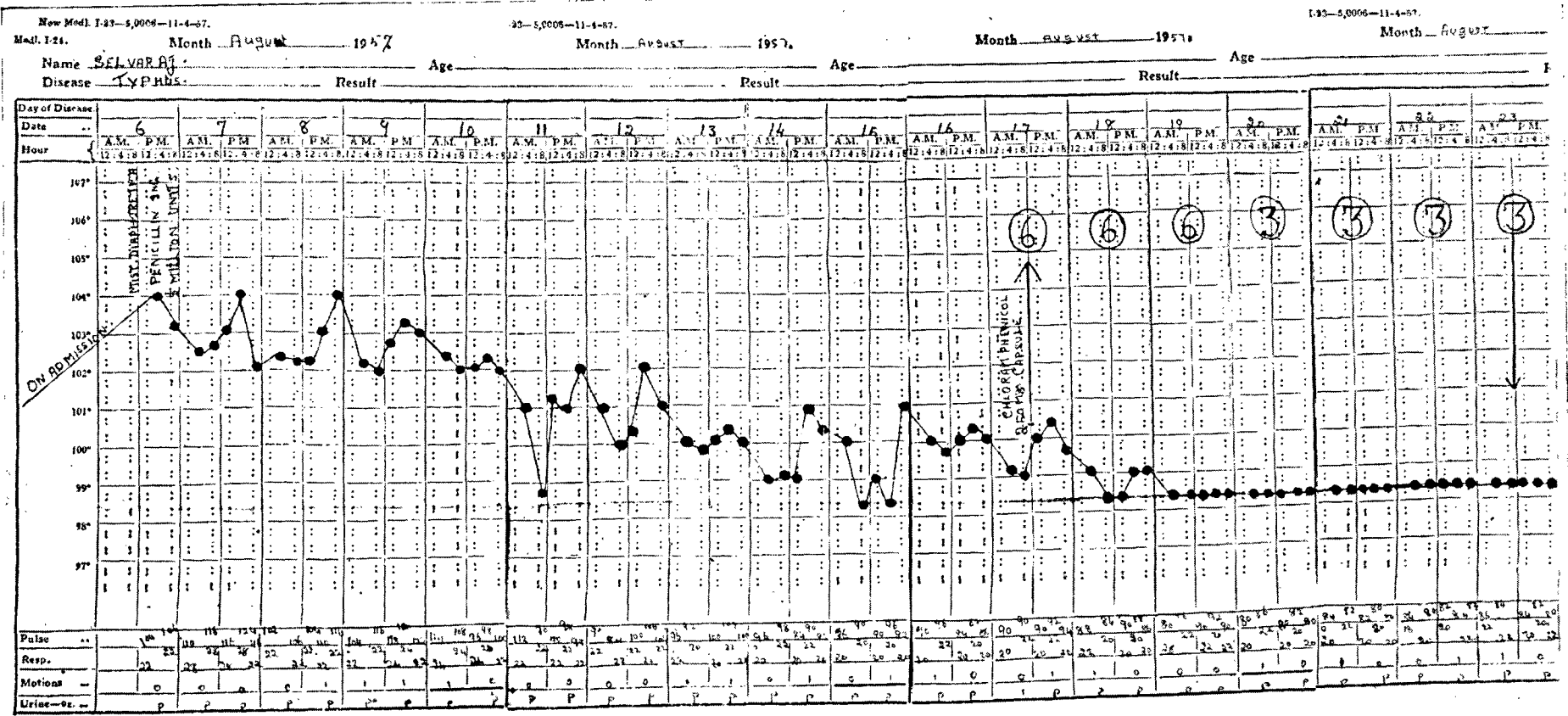
He then developed a dry cough and slept poorly. His fever continued without remission and on 6th August 1956, he was brought to the hospitals and admitted into the typhoid ward.

He appeared toxic, his eyes were congested, the tongue was moist, coated in the centre but clean at the margins. The throat was congested, his teeth were clean and there was no pyorrhoea alveolaris. There was no delirium.

There was no neck rigidity and Kernig's sign was negative. There was no rash. He was not anaemic, cyanosed or jaundiced. There were no palpable lymph nodes in the axillae or the groins.

The temperature was 40° Centigrade; pulse 104 per minute; regular, volume and tension good; respiration 24 per minute; and blood pressure 116/70.

The trachea was in the midline. Respiratory murmur was vesicular. A few scattered rales and rhonchi were heard over both the bases.



The apex beat was visible and palpable in the 5th left intercostal space 1 cm. internal to the midclavicular line. No thrills were felt. The boundaries of the heart were normal. The heart sounds were rapid and normal in other aspects.

The abdomen moved freely with respiration. The liver and spleen were not palpable. No other mass was felt.

Pupils were equal and reacted well to light.

A provisional diagnosis of typhoid fever was made from the clinical picture and following investigations were done.

Urine - acid; no albumin, sugar or deposits. Culture - No pathogenic organisms grown. Faeces - No ova or cysts seen. Blood - Total WBC - 7200/cmm; D. C - P₇₁ L₂₄ M₄ E₁ R.B.C.- 4.1 million/cmm. Smear - negative for malarial parasites.

Widal - Agglutination S. Typhosum,	}	- All negative 1 in 25 dilutions.
S. Para typhosum A		
S. Para typhosum B		
(on two occasions)		

Blood - Culture - Negative for enteric group of organisms. Gel and Chopra test - negative. X-ray chest - Lung fields clear.

Weil Felix test-			
	12th day of his illness	18th day of his illness	26th day of his illness
Ox-19	Positive 1 in 200	1 in 400	1 in 100
Ox-2	Positive 1 in 400	1 in 800	1 in 200
Ox-K	Positive 1 in 400	1 in 800	1 in 200

Compliment fixation test with Rickettsial antigen was not done as facilities were not available in this hospital.

Sternal marrow - No L.D. bodies were seen. Morrow - Culture - for enteric group of organisms - Negative.

TREATMENT AND PROGRESS

The patient was put on Mist. Diaphoretica oz. 1 t.d.s. and Penicillin 5 lakhs daily for the first seven days after admission. Since temperature was still continuing (though there was a decline) he was put on Chloramphenicol 6 capsules (250 mgms. each) a day, for the first 3 days and then 3 capsules (one t.d.s.) for another 4 days. Three days after starting Chloramphenicol, his temperature came down to normal and remained so thereafter (see temperature chart).

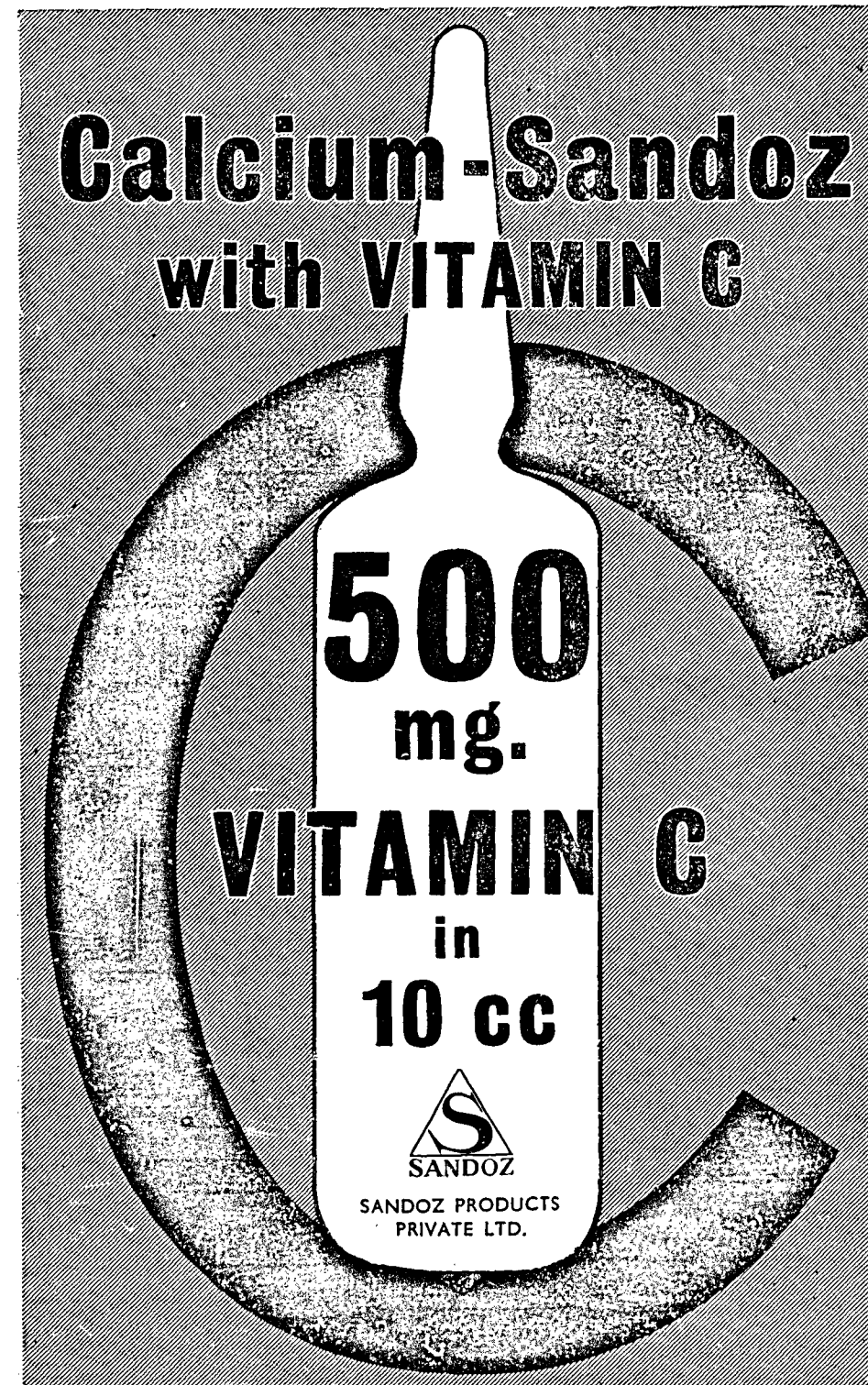
COMMENT

A case of proved typhus fever occurring in a college student from Vepery division, Madras city, is reported. He has never been out of Madras. It appears therefore that typhus fever is endemic in the city itself and many cases are unrecognised.

It is with the intention of focussing medical attention on local incidence of typhus fever in Madras and Vaniyambadi² that this case is reported. It is quite possible that the incidence may be more widespread than is generally believed and perhaps a wider use of Weil Felix test may result in the detection of many more cases. The fever responds satisfactorily to Chloramphenicol treatment and therefore on clinical grounds alone, it is likely to be diagnosed as typhoid fever.

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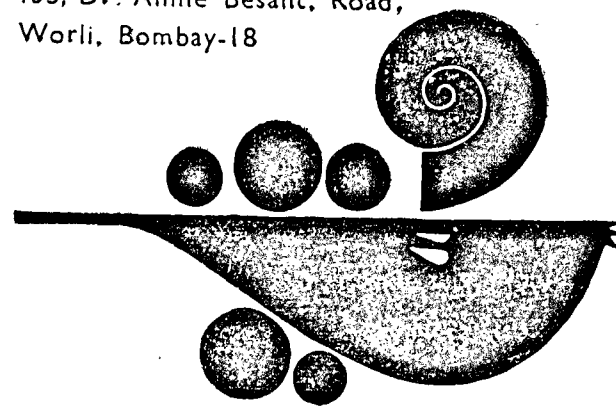
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The Management of Strangulated Inguinal Hernia

Dr. A. UMAPATHY, M.S.*

The recognition and treatment of strangulated inguinal hernia has been standardised by tradition. Yet, such a commonly occurring emergency is worth a review.

Usually, the patients are past middle age and often come for medical aid after some delay. Hence careful and intelligent planning is necessary to avoid mortality and to lessen morbidity.

A well taken history should elicit the duration of the 'Hernia' trouble and the time since when it is causing pain and has become irreducible; nature of bowel movements and the time of last evacuation; whether flatus is passing; any vomiting or fever. Also leading questions are asked for causes that increase intra-abdominal pressure (like intractable cough, difficulty in micturition or constipation), and for symptoms produced by cardiovascular and cerebral diseases *e.g.*, chest pain of angina or coronary thrombosis and strokes. Positive answers should make us take corrective or precautionary measures.

While examining, our eyes must take in the entire patient. Extremis of advanced intestinal obstruction is easily noted; but milder manifestations can be detected if they are looked for with persistence and methodicity; the orbital fullness, moistness of the tongue, turgor of the skin over the abdomen and the limbs all give useful clues.

In most patients, the strangulated hernia is obvious at a glance. Occasionally a Richter's type of hernia, where only a small knuckle of bowel is caught in the sac, may not appear

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prominent on the surface, but could be felt as a painful, tender and somewhat bulky mass when compared to the other normal side. On palpation, pain and tenderness, though somewhat more, is *not* in any way remarkably increased nor is any local warmth felt. In fact, if severe pain is complained on palpation, some inflammation in the hernial contents, like an inflamed appendix or Meckel's diverticulum or diverticulitis of the colon should be suspected. Increased local warmth affords corroboration. Cough impulse is abolished with strangulation. Percussion note is resonant in recent strangulation, where gaseous distension of the obstructed loop is first produced. Later, exudation into the sac may give a dull note.

Routine examination of the abdomen and chest takes but little time and helps us to avoid pitfalls.

Rectal examination is imperative, not only to exclude enlarged prostate but also to know whether rectum contains faeces, in which case a soap and water enema is very essential. Of course even in an empty rectum, enema is a useful measure.

Pulse and respiratory rate must be taken by ourselves (at least once) so that clinical assessment can be confidently based on them. Blood pressure is taken. If the patient can pass urine, it is tested for albumin and sugar. If the latter is present, test for acetone is also done. Catheterisation is quite justifiable, especially if patient looks ill and dehydrated.

At the end of this clinical examinations, we can easily conclude whether the patient is having a strangulated inguinal hernia, and his fitness for operation. A Richter's type of strangulation is difficult to diagnose from epididymo-orchitis. History of the existence of a hernia, previously reducible, and the sudden onset of pain and also its same intensity on gently moving the testis are aids to diagnose strangulation. Further, the patient looks ill rather than feverish.

Taxis should not be attempted except in a rare cranky, patient who adamantly refuses operation but has come early.

Immediate operation must be advised in all cases of hernia, who complain of pain and irreducibility. At the present time it is safe, definite and most acceptable to patients. If it is thought that orchidectomy may facilitate repair, it must be explained to the patient and his permission obtained.

At this stage 1/6th grain of morphia and 1/100th grain of atropine are given intramuscularly and the fact recorded in the case sheet with the time of administration. Crystalline Penicillin 5 lacs units and Streptomycin 1 gram is given i.m. A. T. S., 3,000 i.u. is given as a prophylactic measure. A soap and water enema is given. Following it, the patient lies on the bed, the foot end of which is raised. In this position the lower abdomen, the groin, and the back (if spinal anaesthesia is to be given) are shaved, washed and prepared for operation. Sometimes during these measures, the hernia reduces by itself, giving us a retrospective diagnosis of an obstructed hernia, not strangulation. But this academic point need not bother us. However, skin preparation should not be delayed anticipating reduction, because it cannot be predicted which patient will have spontaneous reduction. Neither the duration of the attack nor the severity of the pain nor the tenseness of hernia are definite criteria. On an average, it takes about an hour to get the patient on the operation table and just before removing the patient from the ward, the hernia is inspected and if it is still unreduced, operation is proceeded with. Further delay is a waste. In case of spontaneous reduction, the operation is done after three days of bed rest, so that tissue oedema subsides and conditions become favourable for proper repair. If the duration of strangulation is more than 24 hours, blood is grouped, and a Ryle's tube is passed and the alimentary tract decompressed. It is also better to start an intravenous drip of 5% glucose in saline even if pulse is of good volume and tension.

Usually spinal anaesthesia is used, which gives ideal operative conditions. Extra-dural anaesthesia is ideal, if an experienced person is available to give it. Local anaesthesia with plain 1% Novacaine (*i.e.* without adrenaline) is the best agent in the very old or in hypertensive or coronary patients. General anaesthesia

is best avoided because of the proneness of elderly patients to develop post-operative chest complications.

A liberal inguinoscrotal incision is made; the best way is to stand facing the foot of the patient and to lightly incise the skin, beginning from the foot end of the scrotum. The incision is deepened at the inguinal end till the aponeurosis of the external oblique is seen. Two fingers of the left hand are used to develop the plane of cleavage and the various layers cleanly divided with straight scissors. Vessels are clamped before division and bleeding points are also caught but all these need not be tied at this stage. Thus the sac is exposed quickly, neatly and with least bloodshed. Skin towels are applied. The sac is gently separated from the cord. Moist pads are placed round the sac and it is carefully incised. All the fluid that comes out is sucked or mopped with scrupulous attention. If any food material is seen in the fluid in the sac, it may be due to accidental injury to the gut while opening the sac. Occasionally, rupture of the ileum due to muscular strain or direct trauma may be the cause. Aird (1957) refers to the strange relationship which inguinal hernia bears to the closed injuries of bowel. I have seen this in a thirty year old moderately obese man who is an executive in an electrical goods firm. He knew he had "hernia complaint" for about a year. During an anniversary of his company, in a sudden burst of enthusiasm, he took part in running race. In the middle he stumbled and fell and developed severe pain in the groin. He did not note whether the hernia was "down" while falling. There was a tense inguinoscrotal swelling on the right side, without any local signs of injury. Usual herniotomy exploration revealed an exudate with some rice particles and mustard seeds; the sac was loosely filled with some normal ileum. On pulling at one end of it an ileal perforation on the antemesenteric border was brought into sight, which was trimmed and closed at right angle to ileal long axis. Two feet on either side of perforation was inspected and found to be normal. The sac was ligated and excised as usual and the wound closed without any repair. He had an uneventful recovery and surprisingly, when seen two years later, he had not developed any recurrence.

Sometimes the fluid may be chylous or whitish; if any tubercles are seen, it may be surmised to be due to tuberculous peritonitis. Later, suitable therapy is administered. Perhaps filarial abdomen may also cause it.

Sekhon (1957) described an encysted pneumococle in a strangulated hernial sac in a patient who had pneumo-peritoneum therapy for pulmonary tuberculosis.

Usually the constriction is at the external ring but frequently the fibrous ring at the neck of the sac itself may be responsible and until this is divided, the strangled contents cannot be delivered freely into the wound for inspection. Omentum should always be excised. If returned into the abdomen there is danger of its developing torsion. Division between clamps and silk transfixion ligature by passing the blunt (eye) end of a curved, round bodied needle is the best method.

Warm, moist pads are gently wrapped round the gut. Return of peristalsis and subsidence of congestion are looked for as signs of recovered life in the segment of bowel. However, before returning it into the abdomen, it is better to start methodic inspection from one healthy end to the other. A systematic examination is a sure method of discovering a Maydl's type of herniation. The constriction sites are particularly inspected.

Before attempting to return the contents (usually the bowel) into the peritoneal cavity, all of them must be gently retracted laterally and the neck of peritoneal sac well visualised. Sometimes, peritoneal ledges are present, particularly in large hernias. Mahadevan (1957) narrates futile attempts in replacing the intestines in a patient because all the while the intestines were pushed into a culdesac under the mistaken impression that it was the peritoneal orifice.

If viability of the gut is doubtful, excision and an end-to-end anastomosis is done. For a low ileoileal anastomosis, the stoma are cut obliquely so that lumen is not narrowed. If the

site of ileal resection is close to caecum, it is better to remove all ileum beyond the proximal section. After closing ileocaecal opening, the ileum is anastomosed to caecum, end-to-side, through a separate incision in the anterior wall of caecum. Usually all these procedures can be done through the herniotomy wound itself, but if any difficulty is experienced, a separate paramedian laparotomy can be employed.

Bladder is recognised easily. Even if injured, it is not a serious catastrophe. Interrupted catgut stitches of the muscular wall alone (without implicating the mucosa) and another invaginating layer of stitches are enough to ensure good healing. If necessary, an indwelling urethral catheter is employed for about three days.

Next, it is to be decided whether the local conditions are favourable for repair and whether patient's general condition would permit further delay and manipulations. Oozing, difficulty in identifying structures, oedematous tissues or a wide gap are all inimical to healing of an ordinary herniorraphy. If conditions are favourable, herniorraphy is done. Orchidectomy usually facilitates repair, and should be practised in persons over 40. Roy (1957) describes a patient who had developed gangrene of the gut and also the testis due to strangulated inguinal hernia. In such a patient there is no choice but to perform an orchidectomy. All types of hernioplasty are forbidden. Asepsis and absolute haemostasis cannot be guaranteed after releasing a strangulation of more than a few hours and in their absence, any plasty will fail.

If repair is not possible, only skin is closed. The incision in the inguinal wall should not be narrowed or closed. A large opening lessens chances of subsequent strangulation.

Post-operatively, antibiotics are continued. Simple cases are allowed oral fluids a few hours after operation and solid food one day later. But those with intestinal resection and anastomosis are treated with Ryle's tube aspiration and parenteral

feeding for four or five days till flatus is passed. In them, it is better to give parenterally some broad spectrum antibiotic for the first week.

Drainage, if any, is removed after 24 hours. Dressing is again changed on the third day and sutures are removed on the 8th or the 10th day. Occasionally, patients develop malena about a week after reduction, particularly if caecum or colon was in the sac. It is explained (somewhat glibly) as due to congestion in the wall of the previously strangled gut.

Patient is advised two weeks bed rest, if the strangulation was merely released. If herniorraphy had been done, one more week of full rest is necessary.

Operative release of strangulation has to be done irrespective of whether the patient is having angina or had coronary thrombosis or urinary obstruction; in the former group of complaints, local anaesthesia is used. For the latter, perhaps under the same spinal, after releasing the strangulation a suprapubic may also be done. Diabetes also is controlled later by suitable doses of insulin. In these matters, a specialist's help, if available, is very useful. Simultaneous bilateral strangulation has not been reported so far; both sides can be operated under the same spinal anaesthesia.

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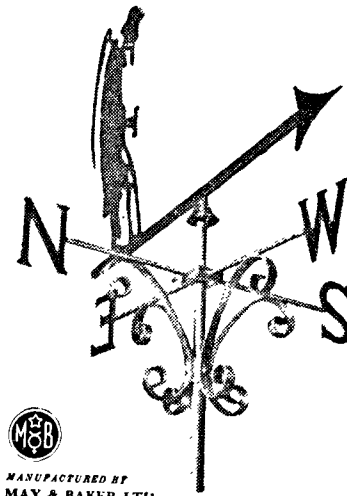
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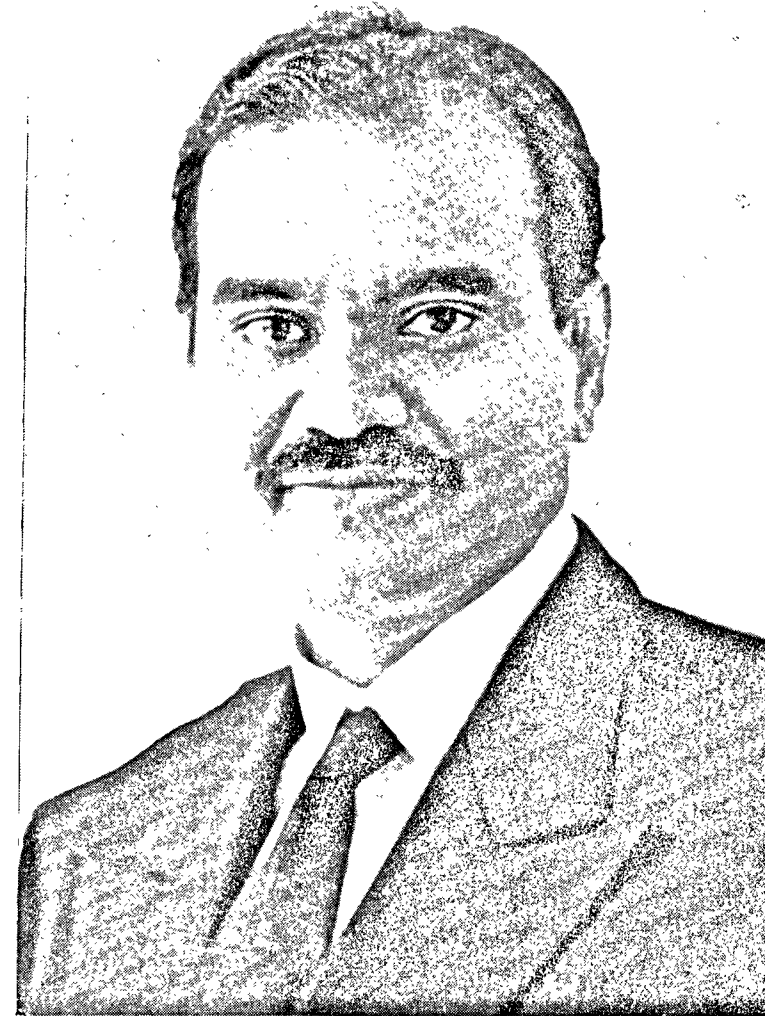
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Effect of Chronic Fluorine Ingestion on Human Skeletal Tissue*

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Endemic fluorosis is prevalent in many parts of South India, chiefly in Nellore District, Nagercoil and certain parts of Hyderabad. Prolonged intake of water containing high concentration of fluorine seems to be the cause for all the irregularities in the bones. The effect of fluorine depends upon the dose, the duration and age of the individual. Fluorine seems to have a specific effect on osseous and dental tissue. The effect on the teeth is the formation of hypoblastic badly calcified enamel and dentine, resulting in a mottled appearance of the teeth. The reaction on osseous tissue varies resembling a generalised bone disease like osteomalacia and myositis ossificans. In a case of chronic fluorine poisoning the weight and hardness of bones are increased. There is calcification of ligaments interosseous ligaments and tendons at insertions. There is marginal lipping of the vertebral bodies. The skeleton under review was the first one obtained in the Department which showed the maximum signs of fluorine poisoning.

The subject was a male, resident of Nellore District, aged about 40 years. His complaint on admission in Government General Hospital was tingling and numbness in limbs and pain in the joints. According to the case sheet the history of his illness was fleeting pains in the joints, white urethral discharge and difficulty in passing urine of 2 months duration. No particular findings were noted on physical examination. Skiagram

*This paper was read before the General Hospital Clinical Society Meeting on 14-10-57.

of the spine showed osteo-arthritic changes. A tumour of the spinal cord was suspected. Summary of the postmortem report shows bony protuberances on the front of third lumbar, and fourth to seventh thoracic vertebrae, bony protuberance on the posterior aspect of the xiphisternum and scoliosis. Chemical analysis of bone ash shows 0.8% of fluorine. Normal range for human bone according to Roholm is 0.05 to 0.21%.

According to Roholm the joints are intact in fluorosis. The joints in the skeleton under review are not affected except for slight calcification of the fibrous capsule. But in some joints, the calcification of the capsule is more extensive, *e.g.* elbow, hip, and intertarsal joints. Calcification of the fibrous tissue seems to be more in the limb bones than the other bones and more pronounced in the lower than the upper limb bones.

Lieut. Colonel H. E. Shortt, and others in their paper "Endemic Fluorosis in Madras Presidency" have graded the cases into three groups:

Group I.—Increased density of bone with exaggeration of the trabeculations and diminution of the medullary cavity. Sacro-iliac joint not affected.

Group II.—The density of cancellous bone is greatly increased and the trabeculations are more pronounced, and the places of osseous attachment of muscles and ligaments and membranes show roughening. Sacro-iliac joints show partial synchondrosis.

Group III.—Most advanced cases. The density of the bones is very much increased. In some of the bones the radiographic effect is that of chalky whiteness. Outlines of the bones are irregular especially those of ribs, pelvis and vertebrae. Bony extensions into the soft tissues like the ligaments are of the type seen in myositis ossificans. Cancellous bone is almost opaque. Osteophytic growths are numerous. The skull shows few changes, even in advanced cases. Sacro-iliac joints are completely synchondrosed.

The skeleton under review belongs to Group III of the above classification, with the following exceptions:

(1) The posterior longitudinal ligament of the vertebral column is thickened and calcified more than any other ligament of the vertebral column reducing the size of the vertebral canal very much.

(2) Parts of the ligaments attached to the anterior and posterior margins of the foramen magnum are calcified.

DESCRIPTION OF BONES.

Cranium.—Size of the skull increased and the bones thicker and the trabeculae well seen. Trochlear spine and the posterior margin of the lacrimal groove prominent. Superior margin of the petrous temporal overhanging, its posterior surface, ligamentum nuchae, anterior and posterior atlanto-occipital membranes, alar ligaments, and insertions of longus capitis muscles and the capsules of the atlanto-occipital joints are partly calcified.

Teeth.—Transverse ridges present in the crowns of most of the teeth.

Mandible.—Surfaces rough. Slight calcification of the insertion of the masseter, as also part of sphenomandibular ligament.

Scapula.—Lines of attachment of the fasciae are prominent. Supra-scapular ligament, parts of coraco-acromial ligament, and a small part of the capsule of the shoulder joint are calcified. Areas of muscular attachments are rough.

Clavicle.—Attachments of muscles and ligaments are rough and contain small osteophytes.

Humerus.—The capsule of the shoulder joint slightly calcified. Lines of attachments of tendons and fasciae are prominent and rough, especially the deltoid tuberosity. The surfaces of the bone rough.

Ulna.—Tendon of triceps partly calcified. Areas of muscular attachments rough and projecting. Capsule of the elbow joint partly calcified, and thick. Part of the interosseous membrane calcified.

Radius.—The lines of attachments of the fasciae and muscles rough and prominent. Part of the tendon of biceps calcified.

Carpals.—Non-articular areas rough and contain small osteophytes.

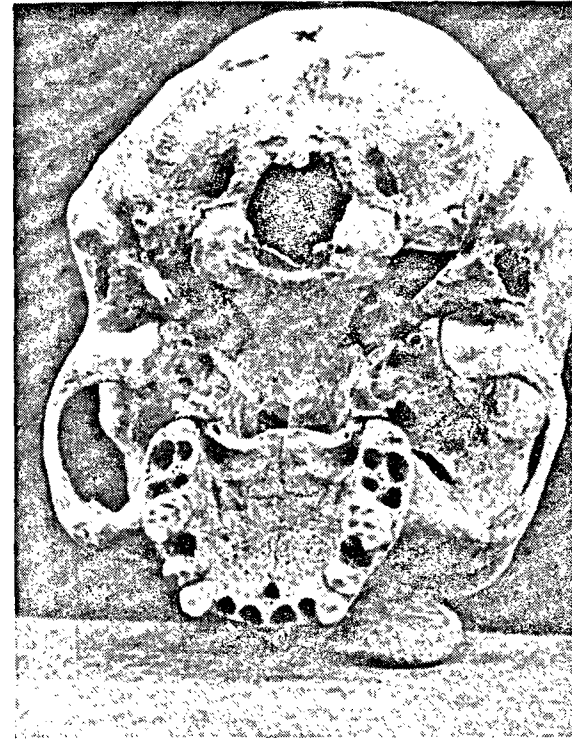
Metacarpals.—Surfaces rough and small osteophytes seen at the bases.

Phalanges.—Slight calcification of the fibrous flexor sheaths. Small osteophytes at the bases and the neck.

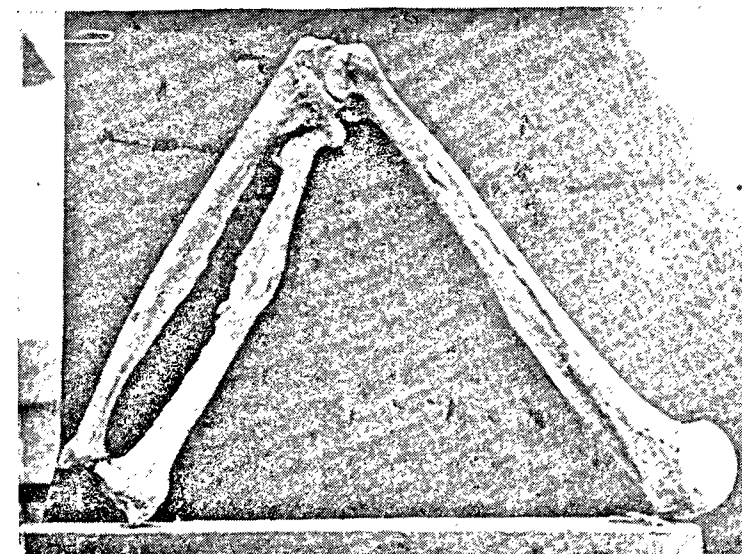
Hip Bone.—Ilium : Sacro-iliac ligament calcified. Gluteal lines contain osteophytes. Ischium : Ischial tuberosity contains small osteophytes. Parts of sacro-tuberous ligament, its falciform process, sacro-spinous ligament (Part) and the walls of the bursa under the tendon of the obturator internus are calcified. Pubis : Pectineal line prominent.

Acetabulum.—Labrum acetabulare and the synovial membrane lining the acetabular fossa, and part of the ilio-femoral ligament are calcified. Osteophytic growths in the obturator membrane near the margins of the foramen. Surfaces of all parts of the bone rough, and the attachments of muscles and fasciae prominent.

Femur.—Synovial membrane near the margin of the head calcified. Neck short, thick and rough, on the anterior surface. Osteophytes in the trochanteric fossa. Part of the tendon of the iliopsoas calcified near the insertion. Trochanteric line thick and irregular. Gluteal tuberosity elevated, broad and rough. Linea aspera and other lines rough and prominent and contain small osteophytes of varying sizes. Osteophytes in the attachments of muscles to the popliteal surface.



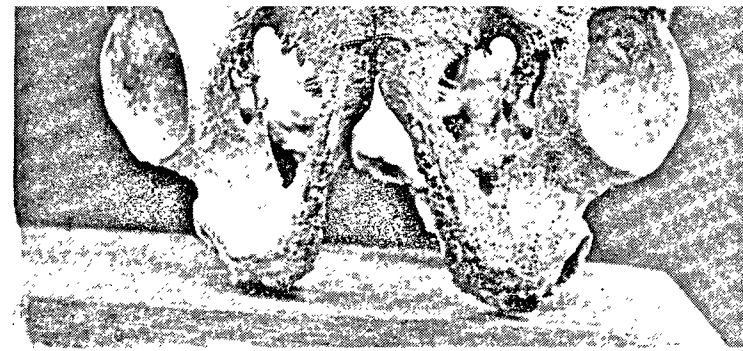
Note osteophytes around margin of foramen magnum



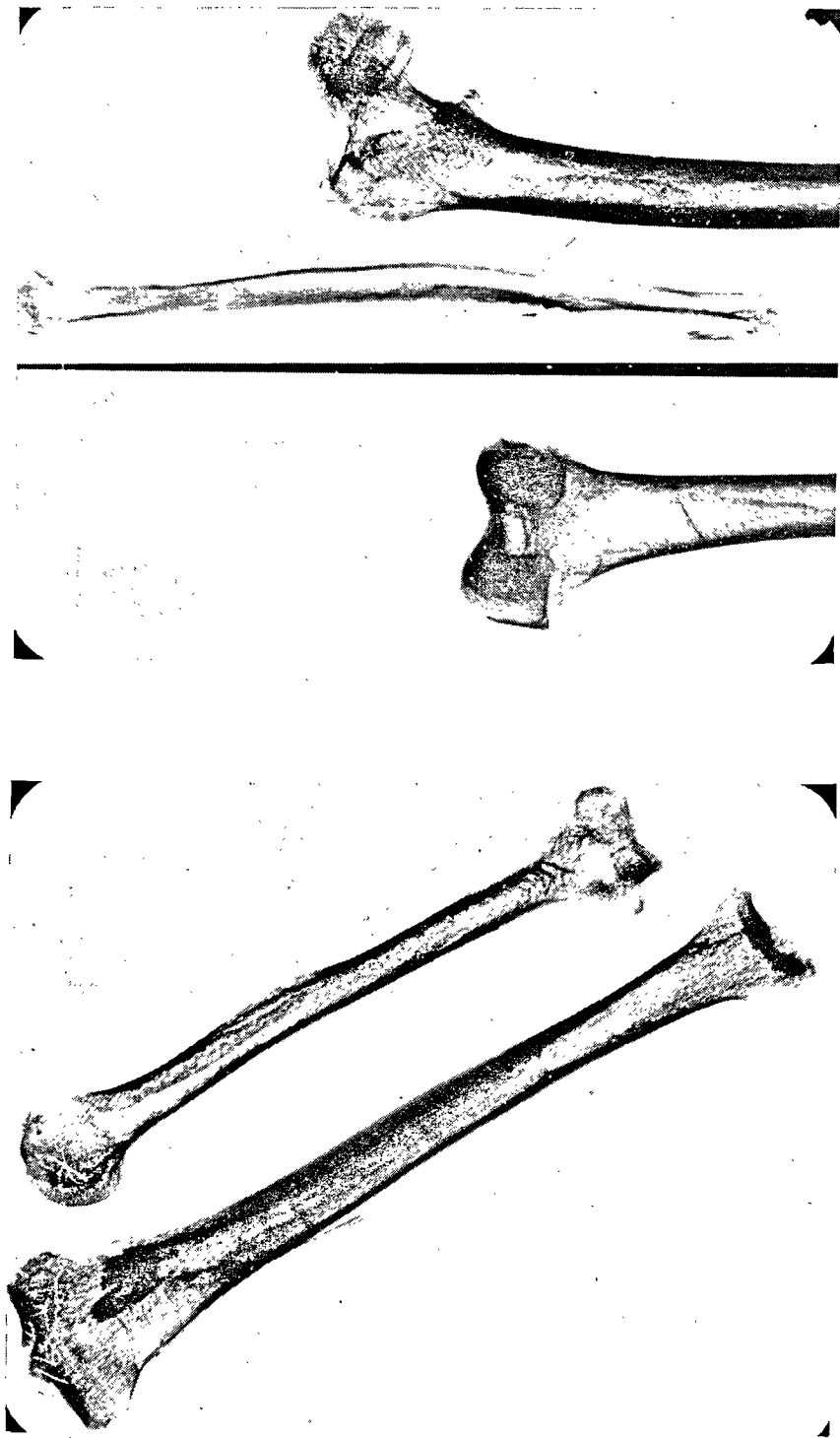
Note—
Ossified interosseous membrane of forearm and ridges emphasised on the humerus



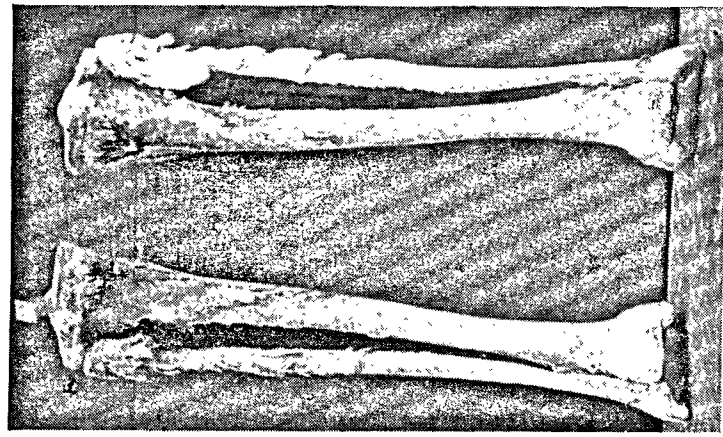
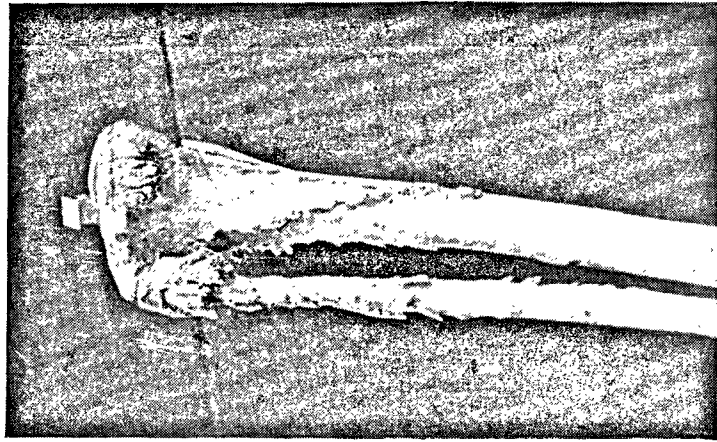
X-Ray appearances—Typical marb



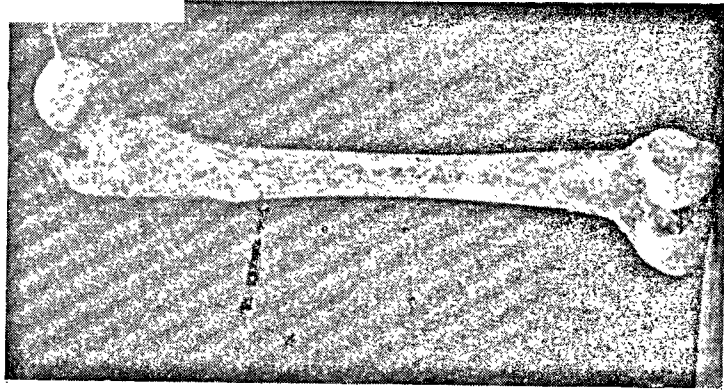
Note margins of obturator foramina and
Ischial tuberosity



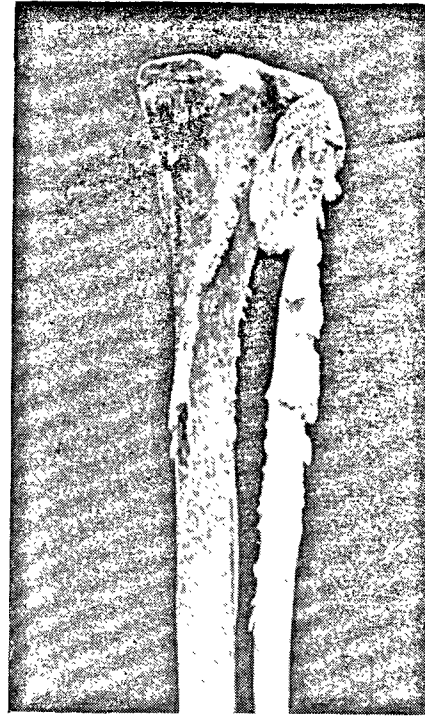
X-Ray appearances—Structure of bone not seen in some places



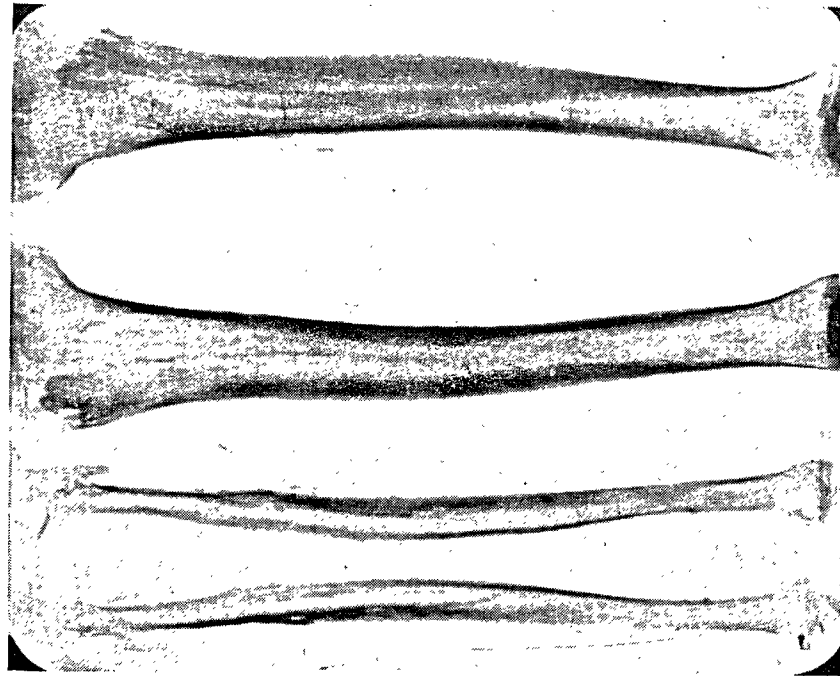
Note:—Ossified ligaments and muscles of posterior aspect of tibia and fibula



Note thickened linea aspera



Note ossified muscular attachments posterior surface of tibia and fibula



Note Lig. patella and upper end of fibula

Note ossified ligaments near odontoid process and in the vertebral foramen



Tibia.—Nearly the whole of the ligamentum patellae, parts of anterior horn of medial semilunar cartilage, posterior cruciate ligament, lower half of medial ligament, and parts of the tendons in front of it, lateral part of the capsule of the knee joint, origin of the soleus, inferior tibio-fibular ligaments, front part of the capsule of the ankle joint, inter-osseous membrane (part) are all calcified and contain osteophytes of varying sizes.

Fibula.—Contains the maximum number of osteophytes of largest size. Small part of the capsule of the superior tibio-fibular joint, the lines of attachments of fascial and intermuscular septa, inter-osseous membrane are rough and prominent and contain osteophytes of varying sizes. The upper part of the posterior surface of the shaft, and the posterior surface of the head contain a single large osteophyte. Inferior tibio-fibular ligaments nearly completely calcified.

Tarsals.—Calcaneum: Tendocalcaneus, plantar apponeurosis, short plantar ligament, and spring ligament partly calcified. Osteophytes in the anterolateral part of the upper surface. The tubercles are enlarged.

Talus.—Osteophytes in all the areas of the ligamentous attachments. Tubercles enlarged.

Cuboid.—Osteophytes in all ligamentous attachments largest in the short plantar ligament. *Navicular*-Osteophytes in all the ligamentous attachments. *Cuneiforms*: Similar. On the right side the capsules of the joints between the navicular the medial and lateral cuneiforms completely calcified. Joint cavities not affected.

Meta-Tarsals.—Calcification of a part of the tendon of the peroneus longus in the first meta-tarsal. Ligamentous and muscular attachments contain small osteophytes.

Phalanges.—Small osteophytes in the ligamentous and muscular attachments.

Ribs.—Margins contain osteophytes. Costo-transverse ligament calcified. Calcification has extended into the first costal cartilage.

Vertebrae.—Cervical: Osteophytes in the attachments of all the ligaments and muscles. Posterior longitudinal ligament thickened and calcified reducing the size of the vertebral foramen very much. Thoracic and lumbar vertebrae not available for study. All the ligaments of the sacrum completely calcified.

All the bones are thickened and heavier than normal. The weight of ulna of a normal man is 39.0 gms. and the weight of radius 30.5 gms. The weight of the ulna of the case is 65.0 gms. and of the radius 45.0 gms.

The measurements of the largest osteophytes and parts of some of the bones are given in the accompanying table.

**MEASUREMENTS OF THE LARGEST OSTEOPHYTES
AND PARTS OF SOME BONES**

<i>Osteophyte or Part of Bone</i>	<i>In Normal Bone</i>	<i>In the Bone Under Investigation</i>
Posterior atlantooccipital membrane ...	...	1.0 cm.
Coracoacromial ligament near the acromion ...	...	1.2 cms.
Posterior border of the deltoid tuberosity. ...	0.4 cm.	0.9 cm.
Lateral supracondylar ridge ...	0.1 cm.	0.6 cm.
Tendon of the triceps ...	...	0.7 cm.
Interosseous border ...	0.2 cm.	0.7 cm.
Biceps tendon ...	...	1.0 cm.
Interosseous border ...	0.2cm.	1.0 cm.
Insertion of pronator teres ...	0.2cm.	0.7 cm.
Obturator membrane ...	...	0.7 cm.
Gluteal line ...	...	0.6 cm.
Sacroterous ligament ...	...	2.3 cms.
Trochanteric line ...	0.4 cm.	1.2 cms.
Gluteal tuberosity ...	0.2 cm.	1.0 cm.
Iliopsoas tendon ...	...	0.8 cm.
Spiral line ...	0.1 cm.	0.9 cm.

<i>Osteophyte or Part of Bone</i>	<i>In Normal Bone</i>	<i>In the Bone Under Investigation.</i>
Linea aspera ...	0.1 cm.	0.9 cm.
Ligamentum patellae ...	...	2.8 cms.
Medial ligament ...	...	4.4 cms.
Soleal line ...	0.1 cm.	1.2 cms.
Fibula :		
Anterior margin ...	...	0.3 cm.
Lateral margin ...	...	0.6 cm.
Posterior margin ...	...	0.7 cm.
Upper part of the posterior surface. ...	...	2.6 cms.
Back of the head ...	...	2.9 cms.
Tarsals :		
Calcaneum—Tendocalcaneus ...	...	2.7 cms.
Plantar aponeurosis ...	...	0.8 cm.
Short plantar ligament ...	...	0.8 cm.
Talus—interosseous ligament ...	...	0.9 cm.
Navicular—lateral calcaneonavicular ligament ...	...	1.4 cms.
Cuboid—short plantar ligament ...	...	1.8 cms.
Cuneiforms—dorsal ligament ...	...	1.7 cms.
Metatarsals :		
Dorsal ligament ...	...	1.3 cms.
Interosseous ligament ...	...	1.1 cms.
Ribs :		
Superior costotransverse ligament ...	...	1.1 cms.
Vertebrae :		
Cervical—posterior longitudinal ligament ...	...	0.5 cm.
(Anterio-posterior dimation of the vertebral foramen is 1.2 cms).		
Axis—membrana tectoria ...	...	1.8 cms.

Gorden and Hedge estimated the fluoride content in human bone by analysing samples of vertebrae and ribs of 85 males and 73 females ranging in age from foetuses to over 90 years. They found a linear increase in concentration in the ash with age and also the concentration is higher in the vertebrae than in the ribs.

Neuman and others investigated the mechanism of fluoride deposition in bone by means of isotopic exchange, ion competition, and column techniques. They demonstrated that fluoride replaces either hydroxyl or bicarbonate ions in the surfaces of the mineral phase.

Paff and Boyd conducting experiments on calcification of cartilage concluded that Sodium fluoride at concentrations which do not disturb growth, can seriously interfere with the mineralization process. They suggested that Sodium fluoride acted both by interfering with the production of Phosphopyruvate and by the binding of calcium by fluorides.

Tompsett in a general article in the British journal of Nutrition, 1952, had discussed the question of deposition of certain toxic elements in the skeleton in preference to the soft tissues. While discussing in great detail the absorption and distribution of lead in the body he briefly mentions also of fluorine and other radio-active metals.

The osteosclerotic changes are, an increased endosteal and periosteal bone formation with thickening of the cristae and processes and narrowing of the medullary cavity. Fluorosis seems to attack mainly the cancellated bones with formations of multiple exostosis. Concomittant with these bony changes there is a generalised calcification of the osseous ligaments. The weight and the hardness of the bones are increased, due to excessive calcification of skeletal tissue and the calcium salts are seen to be deposited in an irregular manner as osteophytes of varying sizes.

The detailed description of individual bones is given to enable the clinician to gauge the variety of possible symptomatology an advanced case can present. Fluorosis was not diagnosed in the present case under review antemortem. It is hoped that this short note should help to keep in mind the differential diagnosis of fluorosis in cases presenting the symptoms of a feeling of stiffness at the joints, limitation of motility of the vertebral

column, mottled teeth, shortness of breath and indefinite or alternating rheumatic pains and tingling and numbness all over the body.

Our thanks are due to all the staff members of the Anatomy and Radiology departments of the Madras Medical College and the Chemical Examiner to the Government of Madras who helped us during the different stages of our enquiry.

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Clinical Reports

GOVT. WOMEN AND CHILDRENS HOSPITAL, MADRAS.

"SERPASIL" IN THE MANAGEMENT OF PRE-ECLAMPTIC TOXAEMIA

In introducing to you today the subject of the use of Serpasil in the management of pregnancy toxæmia, I wish to point out that Pre-eclamptic toxæmia is the commonest complication in pregnancy that we have to deal with. The average incidence in this hospital of toxæmia varies from 10 to 13%. It is customary for us to consider any patient who is pregnant and whose systolic B. P. is above 140 or diastolic B. P. above 90 as having high B. P. The symptoms of Pre-eclamptic toxæmia are :

- (1) High blood pressure,
- (2) Albuminurea and
- (3) Oedema.

It is usually accepted that the very common causes of a rise in B. P. in pregnancy are

- (1) Pre-eclamptic toxæmia,
- (2) Hypertension complicating pregnancy and
- (3) Renal diseases.

Today we are confining ourselves only to the control of *hypertension of pre-eclamptic toxæmia*. In the management of these cases of toxæmia, the main aim is to prevent the patient from getting convulsions, that is developing eclampsia and if possible to prolong the pregnancy to such a stage when the infant is viable and could safely be delivered, *i.e.*, pregnancy should be prolonged to about 36-37 weeks. These are the main aims in management. To obtain this, it therefore becomes necessary, when toxæmia occurs to control the B. P. with hypotensive agents. A very great danger awaits the patient of toxæmia when she goes into labour, as at this time the B. P. has a tendency to rise sharply to high levels which may eventually lead to convulsions and intra-uterine death of the foetus.

Therefore it is necessary to use hypotensives in these cases in labour. Today I am confining myself only to use of Serpasil the well-known preparation, which is said to be very effective in the control of B. P. Dr. Karamjit Singh will be presenting to you the use of Serpasil in pregnancy and Dr. Ranjit Kaur will present our experience of Serpasil in labour. The modus operandi as far as we are concerned in case of toxæmic patients is on admission to keep them at rest for 48 hours and the basic pressure at the end of this period is taken as the starting pressure for results of these clinical trials. Serpasil has been administered both by mouth as well as injections intramuscular and intravenous, the results of which will be presented to you. So also in labour we have used it both intramuscular and intravenous and the results also will be presented to you. After the injection the B. P. has been recorded every 15-30 minutes for atleast some 6-8 hours at a stretch and these recordings are maintained after each injection so that we have been able to know how far and how long these results have been maintained. The results are now to be presented to you.

After these two papers Dr. Willmot will present to you a case of hypertension complicating pregnancy in a young girl for opinion regarding further management.

"SERPASIL" (HYPOTENSIVE AGENT) IN CASES OF TOXAEMIA

Pregnancy toxæmia, the cause of which is still obscure, inspite of the vast researches done towards its solution, constitutes by far the greatest cause of hypertension during pregnancy. About 15% of all pregnancies progressing beyond 28 weeks display the feature. The other causes of hypertension being

- (1) Essential hypertension,
- (2) Chronic hypertension super-imposed on toxæmia,
- (3) Chronic nephritis.

The greatest bugbear in these cases is hypertension. Brown and Dodds found that if the diastolic pressure is over 160 mm. of Hg. the chances of successful pregnancy were poor and here lies the importance of hypotensive agents as they are supposed to lessen the chances of convulsions and cerebral haemorrhage and improve the out look for the foetus. Brown by using

radioactive sodium showed that maternal placental flow was reduced to 1/3rd in pre-eclamptic and hypertension cases. From the obstetrical point of view the aims are :—

- (1) to prevent onset of eclampsia,
- (2) to ensure a live and healthy baby,
- (3) to prevent renal damage in the mother.

The majority of cases become stabilised with strict rest and diet low in sodium and sedatives and when maternity reaches 37 weeks the question of induction should be considered if the condition gets aggravated. There are however cases which present difficulty and these are particularly those who respond poorly to hospitalisation and fail to become stabilised and in addition who first show severe toxæmic manifestation very early and in the event of development the baby is often severely affected due to deficient nutrition resulting from the placental damage.

For a series of cases we were trying Serpasil, the well-known alkaloid of rauwolfia to overcome the above drawbacks in cases of toxæmias. The plant extracts have been in use for a very long time in ancient Indian ayurvedic medicine and recently this has been used with great interest on hypertension. The present review is a preliminary study dealing with its effect on cases of hypertension during pregnancy.

The drug acts by direct depression of vasomotor centre regulating centre in the hypothalamus and in the cerebral cortex. Another important action is its sedative action which is also central in origin. A detailed study of the effect of the drug on 17 cases of toxæmia of pregnancy with control cases is presented.

In our series the cases selected had a blood pressure of 150/90 and above. After a preliminary period of rest and sedatives *i.e.* after 2-3 days, the patients were put on serpasil and only when the B. P. was very high the trial was started on the same day; besides all cases had restricted salt in diet, diuretics and intravenous glucose wherever necessary.

The patients were divided in three groups from the treatment point of view.

(a) **Mild toxæmia.**—B. P. between 140/90 and 150/100 who were started on 1 mg. daily in divided doses and gradually increasing the dose to 2-3 mg. daily (orally). In this group we had 9 cases. Average B. P. on commencement 150/90 and 140/90—Fall to 130/80 with treatment carried out on average of 6-7 days. Four cases had full term normal delivery. Two premature births (32nd). One still-birth in a case who was discharged after stabilisation and came in with aggravated symptoms.

(b) **Moderate cases.**—150/100—170—120. Total 5 cases: Initiated with intra-muscular injections and followed up by oral administration. Dosage ranging between 2.5—5 mg. 24 hours. Average B.P. 170/100 showing fall to 155/100 within 2 hours and tendency to rise up after 3 hours—5 hours. Total duration of treatment was for 5-6 days and in one case about 10 days. Out of these 5 cases 2 full term deliveries; one premature.

(c) **Severe cases.**—With B. P. above 180/120 and 190/130 (3). Were given Serpasil in Intravenous dosage of 2.5 mg.—5 mg. in 20 c.c. 20% glucose 6 to 8 hourly. Total dosage 5—7.5 mg.

Labour had to be induced for changes in the fundus. Two of the cases had a still birth and one a live child.

The B. P. comes down after I. V. injection within 1½ hours and is maintained hardly for ½—1 hour and again rising up after 2 hours exceeding the original limit.

All the control (9 cases) cases of toxæmia had a B. P. of 150/90—160/100 showed good results with rest and sedatives and B. P. stabilising down to 120/80 within an average of 4-6 days treatment which compared favourably with Serpasil group.

So, in general the successful cases are mild and moderate cases of toxæmia and which took 6-7 days to stabilise within a reasonable limit.

In our series of cases the results with Serpasil in the severe cases have not at all been encouraging and we were unable to prolong the pregnancy and prevent the premature labour, nor did it show any reasonably good result in control of B. P.

The foetal salvage is about 35% and one case out of 17 cases had post-partum eclampsia.

Few toxic actions of the drug were observed in a few cases:

- (1) Urticarial rash in one case;
- (2) Congestion of nasal mucosa in two cases;
- (3) Gastro-intestinal symptoms, *i.e.*, diarrhoea in three cases—so that the drug had to be discontinued in between.
- (4) Headache and giddiness were experienced by two patients. Marked degree of drowsiness in cases with high doses was a common feature.

In some cases the B.P. was recorded while the patient was fast asleep—no appreciable fall was noticed during the deep sedation.

So from this short study of cases we have not been able to prolong pregnancy to prevent premature labour.

Details of cases with B.P. recordings are demonstrated graphically. From this preliminary work, it would appear that the action of Serpasil in the control of blood pressure in toxæmia is uncertain and in severe cases it is only of very limited value. However it is proposed to carry on the trials in a large number of cases before any definite conclusion is drawn.

USE OF SERPASIL AS A HYPOTENSIVE IN LABOUR

Our main problem in the management of a Pre-Eclamptic patient in labour is to prevent the onset of convulsion in toxæmia the three cardinal signs of which are oedema, hypertension and proteinuria. The only symptom we can hope to control at this stage is the blood pressure.

During active labour—may it be induced or of natural onset as the strength and frequency of uterine contractions increases there is a corresponding rise of blood pressure and in severe cases it may go up to dangerous levels. This rise may precipitate convulsions and cause intrauterine death of the foetus or bring about other sequels, like cerebral haemorrhage. The higher the initial reading the greater the danger. It is at this stage that the hypotensive drugs have their greatest value. If the blood pressure could be controlled, the likelihood of convulsions and foetal mortality is considerably reduced, if not entirely eliminated. To be useful the hypotensive drug must have a prompt and reliable action, both these factors being extremely important. In addition there should be no adverse effect on the mother and the baby and it should not interfere with uterine contractions.

Serpasil was given in 23 patients in labour. These were divided into two groups.

Moderate with the blood pressure ranging between 150/100 to 170/110 and severe with B. P. above 170/110. There were 5 cases in the first and 18 cases in the second group. Serpasil was not given where the B. P. was below 150/100 unless it started rising above this level after the onset of labour. Artificial rupture of membranes was done in the majority of cases. In 4 of the severe cases labour was induced with Pitocin or Syntocinon drip and artificial rupture of membranes.

Blood pressure records were taken every $\frac{1}{2}$ hour where 2.5 mg. or less was given and every 15 minutes, where 5 mg. was used as initial dose or the labour was induced. The route of administration was intramuscular, intravenous and in a few cases first dose was given intramuscularly followed by intravenous injection 1-2 hours later.

Intramuscular.	Intravenous.	Intramuscular and Intravenous.
6	14	3

To begin with one to two mg. was used intramuscularly, repeated after 2-3 hours. As there was no appreciable response we switched on to intravenous administration and 2.5 mg. of Serpasil were given in 20 cc. of 20% glucose taking about 3-5 minutes over the injection repeated after 1-2 hours. In two cases 5 mg. intravenous was given as initial dose and 7 cases 100 mg. of Pethidine was given in addition.

Results.—As far as the dosage is concerned the response with intramuscular administration of 1-2 mg. was unsatisfactory and the favourable response in all cases was following intravenous administration.

In moderately severe cases *i.e.*, with blood pressure ranging between 150/100 to 170/110 the response was favourable in 60% of cases with an average drop of blood pressure 26.6 mm. systolic and 23.3 mm. of diastolic. The average time taken for the blood pressure to come to normal levels was 1 hour 50 minutes though some effect was observed after 30 minutes. The normotensive level was maintained for 3-5 hours.

In severe cases where the initial blood pressure was above 170/110 out of 18 cases 4 cases showed a response good in 2-11.1% with a drop to normotensive level and fair in 2 where the drop was slight or transient. The average fall of blood pressure was 40 mm. systolic and 15 mm. diastolic. The average time taken for this drop was $2\frac{1}{2}$ hours and it was maintained for 3 hours. In 77.7% cases the result was poor.

2 cases developed convulsions (11.1%) which is considerably high. Both these cases were given Serpasil 2.5 mg. intravenous 1 hour 50 minutes and 20 minutes before the onset of convulsions with Pethidine 100 mg. intramuscular. In both these cases the B. P. went up by 20 mm. systolic and 20 mm. diastolic before the onset of convulsions and both were in active labour. In one case there were intrauterine deaths of the foetus during labour, the B. P. rose upto 240/140 and had to be controlled by Largactil 50 mg. intramuscular.

In 4 cases there was an initial fall when there was no pain but the B.P. showed a tendency to rise and there was no response to further administration.

Side effects.—Two patients were excessively drowsy and difficult to rouse. No baby was affected.

Reviewing on the whole from this small series it appears that the response is fair in cases with moderately high B.P. but poor in severe cases where the control of B.P. is more important. Moreover the time taken for maximum effect 2-2 $\frac{1}{2}$ hours is too long to be useful in labour.

In summing up Dr. Krishna Menon pointed out that from the series here presented and from his own observation, he is inclined to conclude that the use of Serpasil in the control of the severe forms of Toxaemia is very limited mainly because of

- (a) the long time taken for the B.P. to come down after even an intravenous administration.
- (b) its uncertain action and
- (c) the short hypotensive period.

A CASE OF ESSENTIAL HYPERTENSION COMPLICATING PREGNANCY

Patient, Prabhavathy, a primigravida, 20 years of age was admitted on 22nd of July at 8 p.m. with a history of 7 months' amenorrhoea and having had 2 fits at home about 2 hours prior to admission each fit lasting for 2 minutes. She was treated outside with intramuscular injection of paraldehyde 5 c.c.

From the 2nd month of her pregnancy she has been having repeated attacks of headache for which she was getting native treatment. Ten days prior to admission to this hospital she noticed slight oedema of the lower extremities. Micturition was normal. Five days before admission she was seen by a private doctor; her blood pressure was 200/140 mm. of Hg. She was advised rest and salt-free diet.

Two years ago the patient was admitted in the General Hospital at Bombay for fever and during the routine examination the B.P. was found to be 150/100. This hypertension has not been investigated or treated.

There is a family history of Hypertension. Her mother was noticed to have high blood pressure at the age of 33 years after the delivery of her 8th child, but all her pregnancies were uncomplicated. She had no edema or fits. She has repeated attack of headache and vomiting and is under treatment. Her brother also complains of frequent attacks of headache but the blood pressure has not been recorded.

On admission the patient was unconscious. There was marked pitting oedema of the lower extremities and abdominal wall. Her face was puffy and eyelids oedematous. She was not anaemic or cyanosed. Her blood pressure was 210/150 mm. of Hg. Pulse 150/mt. volume and tension poor. Temperature normal. Respiratory rate 20/mt.

On clinical examination coarse rales were heard throughout both lung fields. Heart rate was rapid.

The abdomen was distended; there was no free fluid. Liver and spleen were not enlarged.

On obstetric examination the height of the uterus was 24 weeks, uterus was not acting. Foetal heart audible. The following investigations were proceeded with.

1. Urine — albumin ++
Microscopic granular and hyaline casts ++
R.B.C. and pus cells present.
2. Hb. 60%
3. Serum proteins by electrophoresis.

Total protein	...	5.16 gms%	
Albumin	...	1.59 gms%	
Globulin	...	3.57 gms%	
			α_1 .39%
			α_2 1.03%
			β 1.22%
			γ .93%
4. Serum potassium ... 21 mgm%
5. Serum sodium ... 280 mgm%
6. Blood urea ... 44 mgm%
7. Blood uric acid ... 6.75 mgm%
8. Urea clearance—standard clearance 35.9
9. Fundus examination:

Disc margins blurred. On the right side slight papilloedema with patches of old exudates. Spasm of arteries both eyes.

Soon after admission, she was started on the routine treatment for eclampsia which is followed at present in this hospital.

(1) Pethidine 100 mgm. with Largactil 25 mgm. in 20 c.c. of 5% glucose in aqua is given intravenously very slowly. (2) A drip is then set up of 1000 c.c. of 20% glucose-in-aqua with 200 mgm. Pethidine added to it. (3) 50 mgm. Diparcol and 50 mgm. Largactil are given intramuscularly and this is repeated alternately every 4 hours for 48 hours. In addition the patient received Procaine Penicillin 4 lacs. The routine treatment is over by 48 hours.

During the treatment the B. P., pulse rate, respiratory rate are recorded every hour. An in-dwelling catheter is put in and a record of the urinary output per hour is maintained. Within an hour of admission the B. P. dropped to 120/90, thereafter it fluctuated between a maximum of 200/160 to a minimum of 130/100 during the 48 hours treatment. The urinary output during this period was only 6 ozs. and therefore she was given another 1000 c.c. of 20% glucose-in-aqua after which the urinary output improved. The patient regained consciousness 36 hours after admission and she had no more fits. But the foetal heart became inaudible on the 2nd day.

As the blood pressure was maintained high even after the death of the foetus, she was started on hypotensives. On the 3rd day of admission with a blood pressure recording of 180/140 she was given 2.5 mgm. of Serpasil intravenously and the blood pressure recorded every hour, but surprisingly the blood pressure steadily rose and reached a level of 210/160 by the 4th day. The dosage was increased and we gave her 5 mgm. Serpasil intravenous in the morning on the 4th day—the effect was the same as before and by night the blood pressure reached 230/160 when 2.5 mgm. of Serpasil was again repeated. This also had no effect. On the 5th day the blood pressure rose still further and therefore we decided to change the hypotensive. She was given 20 mgm. Apresoline intravenously and the blood pressure recorded every 5 mts.; at the end of $\frac{1}{2}$ hour there was a precipitous fall to 110/70 mm. of Hg. The blood pressure within the next 4 hours kept within normal limits after which it showed a tendency to rise. Thereafter the patient was treated only with oral Apresoline. On the 6th day she received 150 mgm. of Apresoline and the dosage was gradually increased till it reached a total of 300 mgm. on the 10th day. This dosage is being maintained to date. With the oral treatment of Apresoline an appreciable change has been noticed, the blood pressure varying between 160/110 to 180/110. Because of the existing danger of the development of hypofibrinogenaemia with retention in utero of a dead foetus the blood coagulation tests were done. The following results were obtained a week after the death of the foetus.

Bleeding time	...	30 secs.
Clotting time	...	6 mins - 30 sec.
Prothrombin time	...	14 sec.
Platelet count	...	260,000/c.m.m.
Fibrinogen	...	0.533 gm%.

Clot retraction stable after 1 hour. These investigations are being checked up at intervals.

Induction of labour was attempted 2 days ago with I.V. Pitocin drip 10 units in 1000 c.c. of 5% glucose-in-aqua but it failed.

At present she has no oedema. Blood Pressure 150/100 but albuminuria is persisting. Urinary output is normal. Microscopic examination of deposits: no casts or red blood cells. Blood urea and urea clearance values within normal limits. Heart and lungs normal. Patient has frequent attacks of headache and vomiting.

Fundus examination still shows spasm of arteries and slight papilloedema of right eye. No fresh haemorrhages or exudates.

This case has been brought here for opinion regarding the further management. The patient is young. She is only 20 years of age and this is her first pregnancy which has ended in intrauterine death of the foetus.

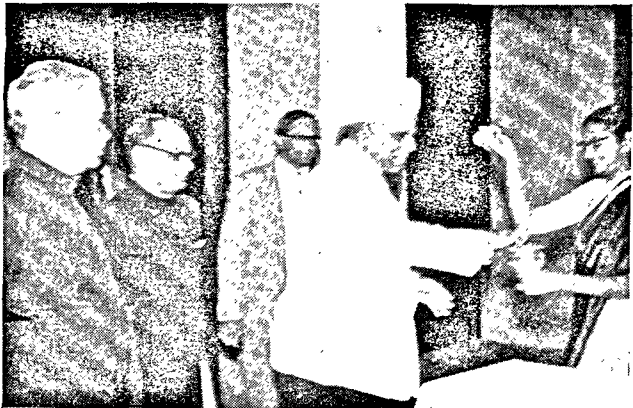
How should the B.P. be controlled?

Could she be allowed another pregnancy and what is the prognosis?

Patient delivered naturally on 18—9—57 a lacerated male child. After delivery blood pressure rose to 164/110. Five days later the patient was discharged. On discharge B.P. was 150/110. Oedema had cleared.



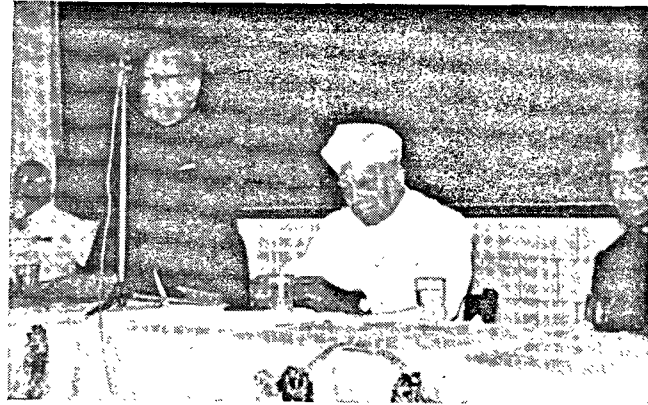
Vice-Chancellor arrives at a
Dinner to felicitate
Lt. Col.V. R.Thayumanaswamy
Director of Medical Services



Vice-Chancellor arrives at a
Dinner to felicitate
Lt. Col. V. R. Thayumanaswamy
Director of Medical Services
(another view) .



The Dinner



D. M. S. Replies

★
Chief-Guest and the Vice-Chancellor



★



Prof. T. Janardhanan, M.B.B.S., M.Sc., proposing a vote of thanks
to the Hon'ble the Ministers



Awaiting the Chief Guests'
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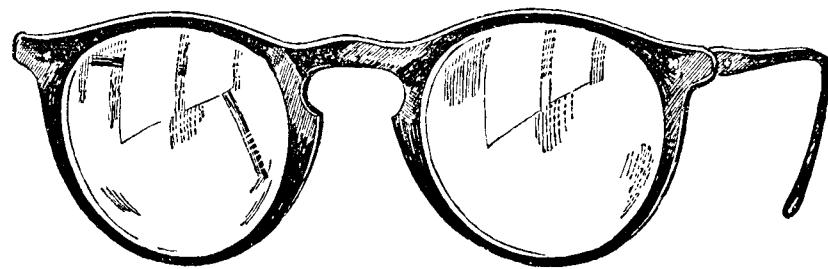
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BUY ONE ANNA SEALS & HELP IN THE FIGHT

GOVT. OPHTHALMIC HOSPITAL, MADRAS.

HYDATID CYST ORBIT

Name: Angian, Age: 45 Male. Residence Village near Gudivada Taluk. Occupation: Agriculturist. Admitted in G.O.H. 22—3—57. Complaint: Proptosis of the left eye. Duration: One year. Dietary Habits: Non-vegetarian; has eaten pork.

History of present illness.—Started as a gradually increasing proptosis of left eye. To begin with it was central proptosis, and after a few months the eyeball was pushed to the temporal side of the orbit. Patient had no fever, no pain, no headache. Noted dimness of vision in left eye after a few months of the proptosis. On the advice of a practitioner in Tenali, patient was admitted in General Hospital in the Neurosurgical Unit. Angiography was done and found to be normal. Later he was referred to this hospital.

Condition on admission.—Patient presented himself with a lateral proptosis of left eye of 12 mms. On inspection no pulsations, no retraction of the upper lid was seen. The colour of the skin of the lids and around the orbit was normal. Conjunctiva was normal; cornea clear, pupil active. The inner canthus was stretched and fullness noted in that region. On palpation a tense mass cystic extending into the inner one third of the roof and floor of the orbit and pushing the eye ball laterally the surface was regular. The posterior extension of the tumour mass could not be palpated, as it was invading deep into the orbit. No evidence of erosion of orbital margins. The eye ball could not be pushed back into the orbit. No tenderness. Adduction movements were limited in the inner quadrant of the orbit, and abduction movements and upward and downward movements were normal. The extent of the proptosis did not change with the change of posture or pressure. Cranial nerves normal. Vision 6/60 Fundus. Evidence of early papilloedema with concentric folds of retina seen in the temporal quadrant. Fields full. Vision fundus and fields in the other eye were normal.

History of previous illnesses.—Nil particular.

Investigations.—Xray of skull and lung fields normal. Kahn-negative. V.P.—negative. Total W B C 6200 P₄₁% L₄₁% E₁₈% Motion: Anky ova seen. Differential diagnosis: since vision, fundus, and fields of the rt. eye were normal coupled with the neurological investigations being negative, intracranial lesions were excluded. Being a painless proptosis of one year duration, and since the defective vision in that eye followed the proptosis, optic nerve tumours had been excluded and space occupying lesions of the orbit had been thought of. Because of the slow growing proptosis lack of pain and presence of mobility of the globe and considering the age of the patient, sarcoma of the orbit and metastatic carcinoma had been excluded. Then the differential diagnosis was between the benign growths as neurofibroma,

neurinoma, fibroma, lipoma and granuloma. Because of its cystic nature parasitic cyst, mucous cyst from paranasal sinuses was thought of. Since V.D.R.L. and V.P. were negative and the xray showed no erosion or signs of periostitis, granuloma was excluded and aspiration biopsy was done on 25—5—57. Ten cc. of clear fluid was drawn and hooklets were demonstrated under the microscope and the tumour was diagnosed as hydatid cyst, lying outside the muscle cone.

On 13—7—57 operation was done under general anaesthesia. Incision was made on the conjunctiva in its most prominent part *viz.* in the upper inner quadrant of the orbit. The cyst wall was very thin and it burst while being dissected out. The fluid was mopped out and the endocyst was extruded. The cyst wall was noticed going deeper to the apex of the orbit. As the endocyst was completely removed, the cyst was ligatured near the apex and excised.

As the cyst had burst allergic reactions in the orbital tissue were expected in the post-operative period. From the day of operation for seven days patient was given Avil injections daily with penicillin injections to combat any infection. The postoperative period was uneventful and the patient retained the same vision as before the operation and the field was full. There was no improvement in the adduction movement of the eye ball as the internal rectus muscle would have undergone excessive stretching and pressure atrophy. Patient has to be followed for some more months for any recurrence.

This is not the first case of hydatid cyst in the orbit in this hospital. Duke Elder in his Vol. V, on page 5474 has published a clinical photo of a patient of this hospital reported by Col. Wright. During the last two years we had two other cases of hydatid cysts of the orbit. One of those cases was a girl of eight years old who carried the cyst of size of a child's head, cystic and transparent. Her clinical photo is being circulated.

Hydatid cyst is the larval form of *Taenia Echinococcus* which has its natural habitat in the intestine of dog. In its larval stage it may become parasitic to man. A collection of the larvae with the surrounding tissue reaction constitutes a hydatid cyst. The eggs of the *taenia echinococcus* are swallowed by man through contamination, the envelope of the egg is digested liberating the embryo, which bores its way into the blood vessel of the alimentary tract and passes to the liver and other organs.

Hydatid cysts tend to occur preferentially in young people. They may occur in any part of the orbit. Classical triad of symptoms consists of proptosis, pain and tumour, in a young person. It is to be noted however pain may be entirely absent as it is in this case.

CHOLESTEROL IN ANTERIOR CHAMBER

Loganathan 24 years male, Gudiyatham. Occupation : Un-employed, discontinued his studies due to eye trouble.

Complaint.—Pain and watering right eye since 2 months before admission, in Government Ophthalmic Hospital.

Family history.—Not married. 2 younger sisters and 6 younger brothers. No defective vision in family: Father married his uncle's daughter (cousin).

History of present illness.—In 1943 patient noted defective vision in R.E. which was gradually increasing. In 1946 he consulted Schell Hospital, Vellore and in 1947 he came to Government Ophthalmic Hospital and was diagnosed as detachment. He was operated in July 1947. Patient had no improvement in vision. Again he was operated in February 1948. There was slight improvement (R.E. : 6/60 to 6/36).

After 2 years again there was gradual loss of vision in R.E. and was treated by a practitioner.

Patient came to Government Ophthalmic Hospital again in 1953 and had medical treatment.

On examination.—Right Eye : shrinking, circum corneal congestion. Deposit of cholesterol crystals in anterior chamber, the level of which changes with the change of posture. Posterior synechiae of iris is present. Tension : Low Right Eye Vision No. PL. Left eye : Pupil active. Disc. : Normal L. E. vision : 6/60. Anterior segment normal. Fundus : Choroiditis Proliferans.

Investigation.—V.D.R.L. : Negative. Urine : Normal. V.P. : Negative Serum Cholesterol 165 mgm. % On 6—8—1957 Anterior Chamber tapped and Cholesterol Crystals demonstrated under microscope.

MARPHAN'S SYNDROME

Natarajan Age : 20 Male, Teynampet, Madras. Occupation : Street Vendor.

Complaint.—Defective vision R.E. since a small boy of 5 years. Defective vision is worsening of late and hence came to Ophthalmic Hospital.

Family history.—Nil particular. No defective vision in family. Patient not married. Patient's present complaint started with defective vision since a boy of 5 years. Sees better when he bends his head towards the floor.

On examination.—(Both eyes) Pupil active, Tremolusness of Iris. Lens subluxated to lower inner-quadrant. Both eyes vision 6/36: Fundus negative. Changes in Retina.

General condition.—Patient is tall, thin and he has arachnidactyly kyphosis, scoliosis, winging of the scapula.

INTERSTITIAL KERATITIS IN CONGENITAL SYPHILIS

O.P. Ticket No. 15080. Name: Sengiah. Age: 20 years Male, Hindu Address: c/o General Hospital. Patient was referred from Venereal Department, General Hospital for examination and treatment of his eye condition. He attended G.H., E.N.T. Department at first for deafness and regurgitation of fluids. As his blood V.D.R.L. was positive for 8 dils, he was referred to Venereal Department and admitted in the Venereal department on 18—6—57, who later sent him to G.O.H. for treatment of eye condition on 11—7—57. History of defective vision both eyes for the past 3 months. Patient is not able to give correct history regarding deafness and hole in the palate.

Local condition.—Lids and conjunctivae normal. Corneal condition right eye worse than left eye. Deep and superficial infiltration with circum corneal congestion present. Pupils slightly dilated and inactive due to application of atropine drops. Tension normal to feel both eyes. R.E. vision 6/24 not improving with glasses. L.E. vision 6/24 not improving with glasses.

Fundus examination.—Both eyes fundus view slightly hazy due to corneal opacity. Disc slightly pale, vessels and periphery normal.

Patient was admitted in Male Gen. Ward under Hony. Surgeon II on 11—7—1957. X-ray Skull: N.A.D. Patient has perforation of palate. V.D.R.L. positive 8 dils. He had 12 mega units of P.A.M. No fever therapy was given. Locally A4 drops, Cortisone and Dionine applied. I. M. Liver Extract 2 cc. with Berin 1 c.c. 7 injections were given for pallor of the discs. R.E. vision 6/18 nig. L.E. vision 6/24 nig.

Patient was discharged to get admitted in General Hospital Venereal Department on 21—8—1957.

The point of interest that came up for discussion was the presence of perforation of the palate along with other manifestations of congenital syphilis as interstitial keratitis and deafness. Dr. Rangiah was of opinion that it is very rare in congenital syphilis.

A CASE OF RUPTURE OF CHOROID IN ONE EYE AND SUNBURNT MACULA IN THE OTHER EYE

Name N, Age 38 years, Sex Male, West Mambalam.

Complaint.—Defective vision L.E. since 10 years.

History.—Ten years ago patient had injury to L.E. with a badminton ball in Cuddalore and noted defective vision since then. He had some treatment from a local practitioner with no effect. Patient can not recollect any more details about this episode at the present moment.

Condition on examination.—R.E. Conjunctiva-normal; cornea-clear; pupil-normal in size and reaction; tension-normal. L.E. Conjunctiva-normal; cornea-clear; pupil-dilated and inactive tension-normal. Vision—Distant—R.E. 6/6—L.E. 6/18—not improving with glasses—Near—R.E. with + 1.00 D. S. reads Sn 0.75.—L.E. with + 1.00 D.S. reads Sn 1.75.

Fundus.—R.E. Sunburnt Macula—L.E. Optic disc and retinal vessels normal. Three areas of Chorioretinal degeneration resulting from rupture of choroid are seen in the posterior pole of the fundus around the optic disc. The length of the rupture varies from the size of two disc diameter to three disc diameters. They are all found concentric to the disc. One of the tears is found on the nasal side of the disc, which is a rare site for rupture of Choroid—and the other two are found temporal to the disc one on side of the macula. Each tear is broader in the middle and narrow at the ends. Vessels are seen crossing the rupture without any change. Media—normal.

Fields—Peripheral—White 3/330 — each eye—normal. — Central — White 2/2000—R.E. normal. L.E. relative and absolute scotoma present corresponding to the areas chorioretinal degeneration.

Discussion.—R.E. Eclipse blindness is usually bilateral. In this patient one eye alone has been affected. There may be a dense central scotoma diminishing visual acuity to an average of 6/12 and sometimes to even 6/60 or less. The scotoma varies considerably. In density it may be absolute or relative. In some cases the area of blindness is too small to detect objectively. This patient is fortunately having good vision in spite of the macular changes produced by the solar injury.

L.E. Site, distribution and shape of the Chorioretinal degeneration are characteristic of ruptures of Choroid which probably occurred as a result of indirect contusion injury with a badminton ball ten years ago.

Choroidal ruptures are usually seen in the posterior pole, more common on the temporal side of the disc, a few in number, crescentic in shape, concentric in their distribution, and varying in their size.

'Choroid was said to give way more readily than the other ocular coats because of the greater toughness of the sclera and the greater elasticity of the retina the rupture being perhaps determined primarily by a tear in the brittle membrane of Bruch.' (Duke Elder).

Rupture of the choroid usually occurs without any associated rupture of the retina. The retinal changes are only secondary to choroidal necrosis. Rarely the retina also may be torn along with the choroid. In such cases the vitreous is filled with blood which later organises as a dense chorioretinitis proliferans.

ENDOPHTHALMITIS

O.P. Ticket No. 17290. Name: John. Age: 25 years Male Christian: Cooly. Address: C/o General Hospital, Madras.

Patient was referred by the medical side of General Hospital with a diagnosis of cavernous sinus thrombosis for treatment of eye condition and admitted in Male Gen. ward under Hon. Surgeon on 8-8-1957.

Patient was examined while he was in General Hospital on 5-8-57 by a Medical officer from G.O.H., when his right eye vision was only PL plus and no vision in the left eye and advised I.V. drip of Achromycin 250 mgm. with Vit. C 500 mgm.

Patient gives history of fever for the past 5 days with edema of the lids for which he was admitted in General Hospital. On careful enquiry he gives a history of white discharge 5 months ago for which he had no treatment. Patient is not able to give correct history regarding the effusion in the right knee joint.

Condition on admission.—Gen. condition very poor. Marked chemosis of the lids. Movements of the eye ball limited in all directions. Both eyes pupils dilated: Not active. Rt. Knee Joint: Effusion present. Patellar tap plus warm. No wasting of muscles.

C. V. system.—Apex beet felt at V left inter space, $\frac{1}{2}$ " lateral to left mammary line. Systolic murmur present.

D.C.	Total W.B.C.	10,000	Hb.	60%
	Polymorphs	77%	Albumin	Nil
	Lymphocytes	21%	Urine	
	Eosinophils	2%	Sugar	Nil

Fundus.—No view is possible in both eyes even after neosynephrin due to purulent endophthalmitis.

Treatment.—Speomycin I. M. daily 1 vial with Sulphadiazine tablets 2 every 6 hours and Vit. C 500 mgms. Locally A4 drops and achromycin ointment.

On 15-8-57 the gen. condition of the patient deteriorated and he was transferred to General Hospital.

The point of interest that came for discussion was whether the metastatic endophthalmitis might have been due to gonococcal infection. Dr. Rangiah considered that metastatic endophthalmitis due to gonococcal infection was very rare and Dr. R. Subramaniam expressed that penicillin could have been preferred instead of Achromycin if the infection was of Gonococcal origin.

INTERSTITIAL KERATITIS IN CONGENITAL SYPHILIS

O. P. Ticket No. 11847. Name: Pandurangam. Age: 22 years. Male Hindu. Occupation: Ryot Address: Tennaamondy, Admitted under Honorary Surgeon on 30-5-57 and discharged on 17-8-1957.

Diagnosis.—Congenital syphilis with interstitial keratitis L.E. History of injury to the left eye with Casuarina leaves for which irritant remedies were applied 2 months ago. Since then pain, epiphora and dimness of vision in the left eye.

Left eye.—Lids normal. Conjunctiva congested. Cornea—Deep and superficial infiltration present with folds in Descemet's membrane, pupils normal in size and active. Left Duct: free L.E. vision: 1/60 V. P. test: Negative. Blood V.D.R.L. positive 64 dilns. Urine: Albumin & Sugar: Nil.

Memo to Venereal Department G. H. was given and patient was treated with 12.8 mega units of P. A. M. and 10 c.c. of Bismuth. Locally he had A4 drops and Cortisone and I.V. Neutral iodine and I.M. Milk injection.

15-8-57: R.E. vision: 6/9. L.E. vision: 6/9.

Patient was discharged on 17-8-1957.

Diagnosis.—Congenital syphilis with Interstitial Keratitis. History of injury to the left eye was only incidental and interstitial keratitis due to congenital syphilis manifests after minor injuries as in this case. It is of interest also in assessing the visual disability as how much is due to the injury and how much is the result of already existing congenital syphilis.

GOVT. MENTAL HOSPITAL, MADRAS.**CASE OF CEREBRAL ARTERIO SCLEROSIS.**

Mr. M, 55 years old, married, businessman by occupation, was admitted into this hospital on 15—8—57, with a complaint of inability to read and write and to see for the past one year and an impairment of memory for the last 6 months.

About a year ago, while in Burma, he developed fever for which he was shifted to hospital in Rangoon. During his stay in the hospital he experienced suddenly the impairment of vision. He was unconscious in the hospital for about 11 days. According to the patient's statement, he has been defective in his memory for the last 6 months. About 20 years ago, the patient had left sided Hemi Paresis lasting for one day, after which he was diagnosed as Hypertension. No history of Diabetes. No trauma or Epileptic fits. His mother is alive 96 years old. Father died 20 years ago. There is no history of Epilepsy or insanity. Patient is the fifth in the order of 6 siblings. He has studied upto IV form, married in 1927, and married life has been happy, has five children and has been doing business in Rangoon. He used to visit India frequently.

Upon admission patient appears well-nourished and is oriented well in all spheres. There is an hesitancy to answer his name, the place and time etc. He has a difficulty in recalling the events of the recent past. For example when asked how many children had he, he replied 5. He could name the first 3 children but could not recall the name of the last two. What day is today? He gives a wrong answer. What is the current month? He replies June. What is the current year? He says 1959. He takes considerably long time to say things. He cannot easily recall the address of his relatives in Madras, his children's names etc. He is able to recall the names of his first four children but unable to recall the name of the last child.

Similarly he commits several mistakes in giving out their names. When we put questions he answers in the following manner :

How old are you ? ... I am 54 or 55.

When were you born ? ... I cannot remember. Approximately I was born in 1894. So I must be 57 or 47, plus 9.

What did you take for your break-fast ? ... I took vegetarian diet.

What articles of diet did you have ? ... I took vegetables.

What else did you have ? I had tea and iddlies.

Did you have tea ? ... No, I never had tea. Never had given to me. I never said that I had tea.

There is no evidence of gross confabulation or fabrications. He cannot perform the 100-3 test *i.e.* counting back from 100 every third number. Neurologically, the patient had a right sided temporal hemianopia with the absence of light reflex when the light was thrown in the blind half of the visual field. Ophthalmoscopy revealed arterosclerotic retinitis both eyes. His blood pressure was 190/120 mm. of Hg. The electro cardiographic record revealed left axis deviation with left ventricular preponderance. The blood serology was negative. C. S. F. findings were non-contributory. Urinalysis and motion examination did not reveal any abnormality. The patient was started on a course of Reserpine tab. 0.1 mg. 1 b.d. and Nicotinic acid tab. 100 mgm. 1 t.d.s.

Simultaneously he was started on the following :—

Histamin	...	0.25 mgm.
Nicotinic acid	...	200 mgm.
Vitamin C	...	300 mgm.

In. 100 cc. of 5% glucose saline as a drip daily for 10 days.

After about 2 months, the patient showed appreciable improvement in his mental condition. His blood pressure came down to 182/78 mm. of Hg. His vision, however did not show any improvement.

CASE OF GENERAL PARESIS

Mr. R, 43 years old, ribbon vendor, was admitted into this institution on 31—8—57 with a complaint that he was wandering away from home, assaulting and abusing people and saying that he has amassed a lot of wealth etc. He is married and one of his children is suffering from a mental disorder. Upon admission, he was oriented well in all spheres and was clean in his personal hygiene. His utterances were, "I have amassed a lot of wealth, crores of rupees. I have wives in all the places. One crore at times and 50 crores at other times. My children are now in Heaven and I too intend to go to Heaven. I have seen several Gods in Heaven. I am myself a Raja from Heaven. The entire world is my kingdom". When asked he could know the Gods in Heaven. He recalled Yes, and he would sing a song with Gods who were there. He said that he had a Super Human Power. He sang a song and pointed the Sun and said "I know the Sun. It cannot move today and there could be no sun set. I had been to London day before yesterday, and saw several things there".

The delusions were constantly present but were of transitory and changing type. But on another occasion he said "I visited Heaven and saw Agni Thevar". "I had a curse from him". "I saw smoke and fire every where". Perhaps of delusion and persecution.

Neurologically the relevant findings were his dysarthria slurring speech tremors of the tongue and peri oral muscles and tremors of his out stretched fingers. Hand-writing test revealed his gross tremors of the fingers.

The blood Kahn was positive strong and cerebral fluid revealed 5 cells and 60 mgm. of protein. W. R. 0.1 cc. and 0.5 cc. positive strong and Langes 5555550000.

CASE OF GENERAL PARESIS

43 years old male, married, gardener by profession, was admitted in this hospital on 21—9—57. The main psychiatric finding in this patient was a defect in his memory and an attempt by the patient to fill the gaps in his memory. This is a clinical finding in Korsokow's syndrome and occasionally seen in General Paresis. The relevant neurological findings were dysarthria tremors, "the facial muscles and tongue, weakness of all the 4 extremities with an incomplete hemi paresis of the right side. There was involvement of the cardiovascular system as denoted by hortic regurgitation. There was diastolic murmur. There were peripheral findings such as pistol shot sound,

duroziez murmur and capillary pulsations. The blood pressure in the upper extremity was 160/50 and lower extremity 180/50. His blood Kahn was positive strong and cerebro spinal fluid showed 6 cells 50 mgm. of protein and W.R. 0.1 cc. and 0.5 cc. positive strong, and Langes 5555330000. The interest in this case is that the case presented Korsokow's syndrome.

CASE OF PARANOID SCHIZOPHRENIA

Mr. G, 24 years old, male, was admitted into this hospital on 20—8—57 with a leading complaint that he was seen muttering to himself and laughing to himself, never interesting himself in the surroundings and preferring to be lonely for the last 2 years. The patient has studied up to B.Sc., and there is a heavy incident of insanity in the family and his sister is being treated in this hospital simultaneously. His maternal grand mother was insane. The childhood history revealed that the patient did not have much of paternal affection. Upon admission the patient was oriented well in all spheres. Has a good memory, recent and remote past. He was seen talking freely in a low monotonous tone without any change in the pitch and rhythm. He had a tendency to look at the floor and smile occasionally. His decubitus was one of flexion and adduction of the limbs with a stooping of the back and his face flexed and looking at the floor. He was experiencing voices—auditory hallucinations that were criticising him. He was harbouring ideas of persecution.

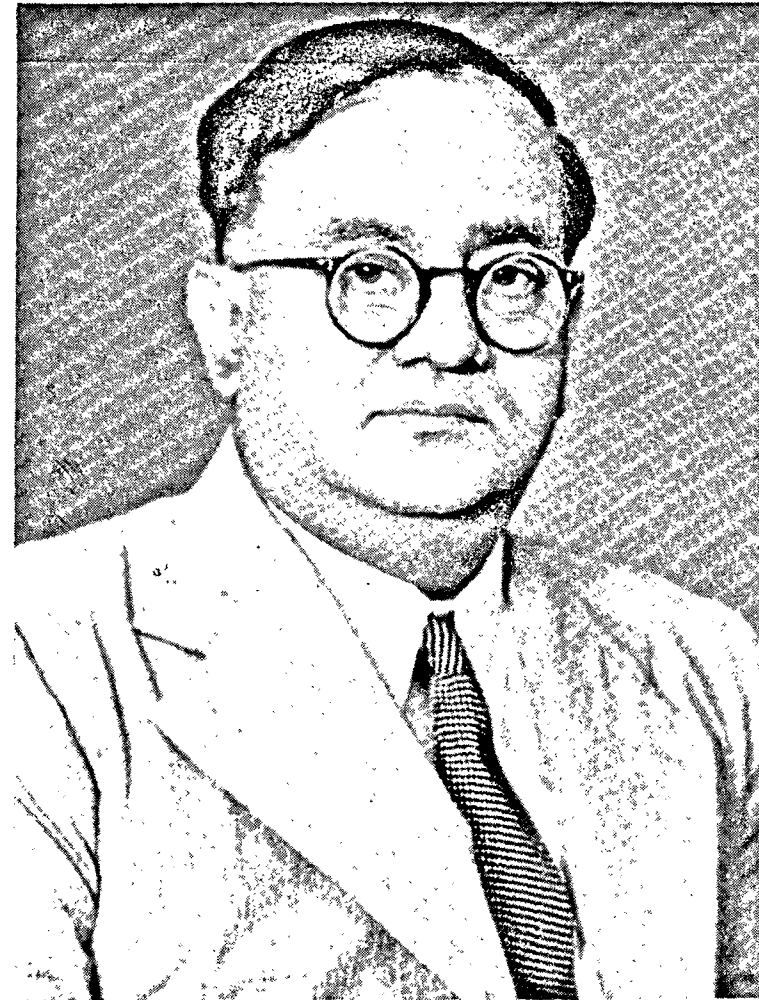
While he was studying in a local college, he began to feel that he was unduly favoured by the professors by being awarded extra marks which he did not deserve. He was suspecting that his professor was trying to get him married and hence this undue favouritism. He had certain degree of insight into his condition to the extent that he was aware of the abnormality of his hallucinations. He was cooperative for treatment.

Upon further going into the past history of the patient, it was discovered that he was indulging in masturbation and homo-sexuality—being a passive participant in the act. The evolution of the delusions and hallucinations in this patient can be explained on the basis of Freud's Theory. According to Freud, the development of the libido takes place along a particular pattern.

Every child has his own sexual life. During the two or three years of life emotional satisfaction and gratification are derived by stimulation of the anatomical parts of the child itself. For instance the only activities that enter the new born's consciousness are feeding and excreting. These serve to satisfy the

emotions of the child. Between the third and the fifth or sixth year the child derives emotional satisfaction by being attached to the parent of the opposite sex. From then onwards upto the time of puberty the gratification is achieved from the other members of his own sex. This phase is called homo-sexual phase. From puberty onwards, the person develops hetero sexual urge. During this development of libido, an arrest can occur at any of these different phases leading to immaturity of the emotions of the individual. The process of arrest is called fixation. In the case under discussion even though the patient has passed into the hetero sexual phase emotionally he was fixed at the homo sexual phase. This homo sexual instinct was repressed in his unconscious and when this repression has gone on to an unbearable extent the mechanism of projection came into operation to relieve the repression. By the mechanism of projection the individual tries to project the blame on others—outside his self—for his inadequacies. Thus the hallucinations and delusions of persecution resulted.

The patient was given a course of insulin coma therapy. He showed much improvement in his mental condition.



Late Dr. K. GOVINDA MENON,
Professor of Anatomy, Madras Medical College.



Late Dr. B. T. KRISHNAN,
Professor of Physiology and Principal, M. M. C.

Association Notes

THE GENERAL BODY MEETING OF THE MADRAS MEDICAL ASSOCIATION

The general body meeting of the Madras Medical Association was held at the Madras Medical College on 30—3—1957 at 6 p.m.

Dr. R. Subramaniam, B.Sc., M.D., M.R.C.P., President, took the chair, Dr. T. Janardhanam, M.B.B.S., M.Sc., Secretary presented the annual report.

A reference was made to the division of the composite State and fear was expressed that the impending formation of Kerala and Karnataka might still further reduce the membership of the association and affect the funds and therefore the publication of the journal; but the President however had taken a great interest in attracting sufficient advertisements to tide over the sorry state.

The statement of accounts, circulated among members was considered. As per rules, objections, if any, were called for by 10—4—1957. On the whole there was a sum of Rs. 1,616 and odd.

The following subjects were discussed :

Dr. P. S. Kumaravelu's reference to deputation on the honourable minister; the President intimated that the Director of Medical Services had asked for certain particulars regarding the deputation and the matter stood at that.

The Secretary read the condolence resolution relating to the sad demise of Drs. R. E. S. Muthiah and Dhairyam. The general body stood for two minutes in silence as a mark of respect and passed the resolution.

“ The Madras Medical Association places on record their deep sense of grief at the untimely death of two distinguished members of the Madras Medical Service and conveys the same to the families of the two deceased members of the Association ”.

The following office bearers were elected :

Dr. R. Subramaniam	... President.
„ S. Govindarajan	... Vice President for city.
„ V. Dharmarajan	... Vice President for mofussil.

Dr. P. N. Rangiah	...	Executive Committee Member.
„ N. R. Ratnakannan	...	do
„ T. Janardhanan	...	do
Major P. S. Kumaravelu	...	do
Dr. V. Anandaraman	...	do
„ K. S. Ramaswamy	...	do
„ C. Senthilnathan	...	do

The general body unanimously approved the nominations of Dr. M. Natarajan (Proposer: Dr. K. P. Sarathy Seconder: Dr. Ratnakannan) and Dr. K. P. Sarathy (Proposer: Dr. Govindarajan Seconder: Dr. Balakrishnan) to the executive committee.

The appointment of the auditor was left to the discretion of the executive committee.

Letters from members expressing inability to attend were read.

A letter referred to a possible irregularity in the promotion of a Civil Asst. Surgeon. After discussion an assurance was given that the matter would be studied and enquiries made at the D. M. S.' office.

A letter in which a member suggested a request for an allowance of Rs. 50/- for a Civil Asst. Surgeon who was in-charge of sub-jails in Taluk headquarters.

After discussion the following resolutions were passed:

(a) The Madras Medical Association requests the Government to consider favourably the grant of Rs. 50/- as Jail allowance to Civil Assistant Surgeons in Taluk headquarters who are in medical charge of Sub Jails in addition to their duty in conformity with the Jail allowance of Rs. 100/- paid to District Medical Officers who are in charge of central jails.

(b) The Madras Medical Association requests the Government to sanction an allowance of Rs. 150 to Vice Principals attached to Medical Colleges as they have to do onerous and extra duties involving long hours of office work.

(c) The Madras Medical Association requests the Government to sanction a risk allowance of Rs. 100/- to Civil Surgeons and Rs. 50/- to Civil Assistant Surgeons working in Government T. B. Institutions.

(d) The Madras Medical Association requests the Government to favourably consider the granting of a special post mortem allowance for officers connected to medico legal departments and an allowance for each case of post mortem done by medical officers in the mofussil stations.

(e) The Madras Medical Association places on record its deep resentment and protest against the recent order of the Government asking the D.M.O. Tirunelveli to vacate his quarters which has been long in the

possession of D.M.Os. in favour of the Dist. Collector and also subsequently cancelling even the D.F.O's. quarters allotted to D.M.O. in the original order. This association also requests the D.M.S. to safeguard the interests of his subordinates and see that their rights and dignity are protected by allotting suitable quarters for their Dist. Officers suited to their status.

Finally the following resolution was moved but fell through for want of a seconder:—

“The Madras Medical Association protests against the statement of Dr. C. K. Prasada Rao that ‘only’ retired men should be appointed Deans on the ground that they alone will be independent”.

Business over, the President felicitated the distinguished guests, and remarked that by the time a man qualified in the Medical College, he was fairly old and at the time of his entry in service, he was pretty old. After entering the service and by the time he was confirmed he was aged about 55 with the result that when he retired the pension that he drew was not worth mentioning. For instance the Dean who retired just then, after all the years of service drew a pension of about Rs. 270/-.

He also mentioned that at the present moment one is not able to accumulate the leave; in the case of the medical profession they were literally on duty right through the 24 hours without any holidays. Government may declare holidays but they do not enjoy them; they do not know that it is a holiday; very often they come to the hospital and then only they realise it is a holiday for others. The compensation that the Medical Officers get is only about 10 days extraordinary casual leave which is not worth mentioning. Besides this, they are only eligible for one month's earned leave, for eleven months in the year.

Dr. R. Subramaniam further said that in the past medical officers used to have men from foreign countries working as Professors who used to go back to their country once in 3 or 4 years and return with better knowledge. The medical officers at present do not have any chance of going abroad. So he placed his humble request before the Ministers that every 3 or 4 years the Govt. may be pleased to depute medical officers to attend international conferences on special subjects so that their knowledge would be useful to the public.

He welcomed Capt. P. Krishnaswami, the Retd. Physician of the Govt. General Hospital, saying that the Captain was a teacher to several senior members of the profession present, and a worthy member of the profession; once a Professor in Madras Medical College and earlier than that in Vizag and that in all these places, people had nothing but admiration for the splendid way in which Dr. Krishnaswami carried out his duties.

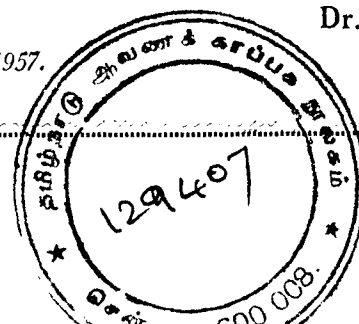
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I, Dr. T. Janardhanan, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Date, 28-2-1957.



Dr. T. JANARDHANAN,

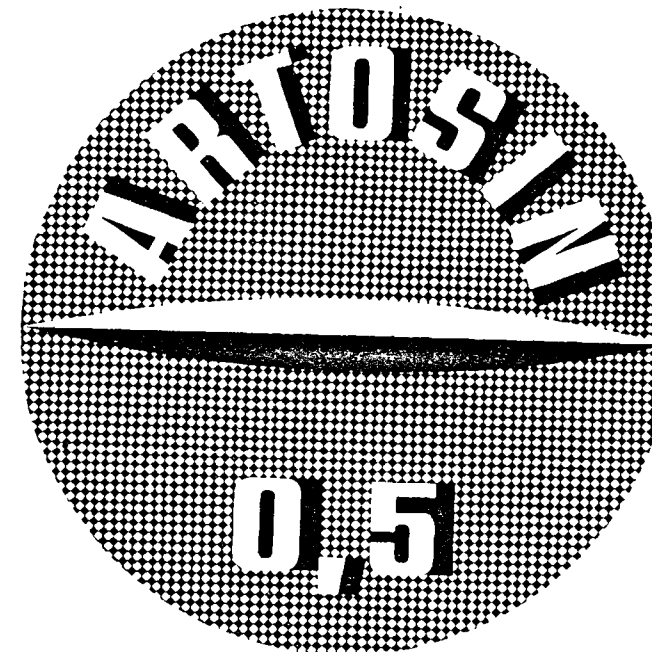
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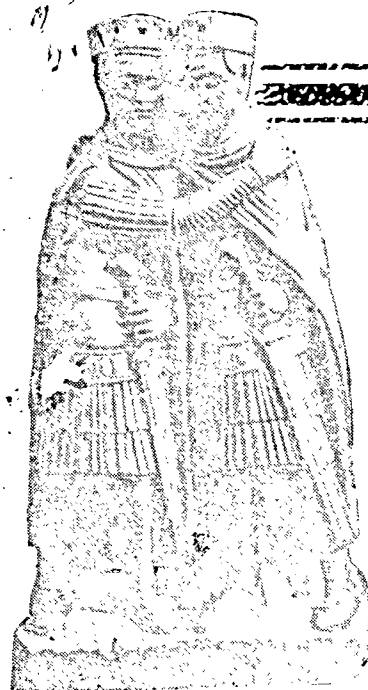
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