The Madras Medical College Magazine

Vol. XXVII | JULY 1949 | No. 3

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ART PLATES

by Sunderlal Sahi,
Final Year.

See the conquering hero comes!
Sound the trumpets, beat the drums!

T. Morell.

The

Madras Medical College Magazine

Vol. XXVII	JULY 1949	No. 3

The Editorial

Comrades, the last number of Vol. XXVII goes to the press at a time when many important events are taking place in India. Now we are in Commonwealth, later we may become Independent Sovereign Republic and still later the leading nation of the East. All these are very pleasing terms. Let us pause for a while and think whither we are going and what are our provisions? Our banner will fly aloft in the comity of nations if the lot of every living person in the country is improved. Economical status, educational opportunities and medical facilities must be increased. That old saying "Kings have fallen, dynasties have been destroyed, wars have been fought, Kingdoms have been established in Delhi, but yet the Indian farmer goes for ever with his two bullocks to his lands only to return and mourn—no rains, no water, no seeds?"—should no longer continue.

Education :—In the field of education it is no exaggeration if we say Madras stands first in brilliancy and efficiency. Yet what is the percentage of literacy here? Indeed it is shameful to see grown up men and women seeking the help of some young school boy to scribe a letter for them. Our university should soon evolve a method to make the students help spread of adult literacy during the short spring and long summer holidays (for example as in U. P. and Mysore). Besides this, India needs a wholesome educational programme. Temples of education must be so attractive that the children instead of creeping like snail to school should run for it with joy. Older ideas of education based on mental descipline

must give place to newer ideas based on pupils' interest. Education can adopt methods of teaching which do away with inhibitions and encourage growth enabling minds and personalities to develop freely in the harmonious community of a cheerfully ordered school. It can encourage original inquiry, critical thought and mental adventure in ways appropriate to each stage of growth. Education if properly directed can lay the foundations for want of which previous efforts at building world society have been buildings on sand. One Manhattan district project of 500,000,000 dollars has produced that dreadful atom bomb. The world knows now that there is no foreseeable limit to forces of destruction and it knows in its heart that only ultimate way lies not in treaties or systems of government but in change of vision and purpose, in the substitution of Co-operative endeavour for the personal economic gain. As such task of reorganising education must be tackled with some of the ruthlessness of war itself. U. N. E. S. C. O. must be no minor sub-office of the U. N. O. but its power house.

Medical Education :—During the long university career we are hearing year after year the authorities speaking of scanty public health provisions of the country and scarcity of technical men. Government after having come into the hands of the people did its best to give medical education to more boys and girls but alas the most important problems of shortening the course and establishing one uniform medical education remain unsolved. It is indeed a bold and commendable step to abolish pre-medical course of six months. But yet amongst all technical and non-technical courses available in the country medical education remains longest apart from its innumerable examinations and hazardous hurdles. It is the considered opinion of many an old pupil that the course can be beneficially reduced if our aim is to produce more doctors. The pre-clinical course wherein fundamentals are taught is of very great importance but at the same time it need not be in excess. The detailed way in which it is taught speaks of its efficiency and central government has thought well that there should be an up-grading in these departments. This course can certainly be reduced to a year and a half. Amongst the clinical subjects every one will join with us if we say that the long stay of two years in the department of hygiene is an exaggeration. It may well be deleted. Our science is indeed becoming more prophylactic minded and all prophylaxis can be taught and is actually taught with lectures on general medicine and

surgery. It will not only save the worried mind of a medical student from the burden of an examination, it can certainly shorten the course by six months. Thus if authorities wish, our regular course of studies can be reduced to four years. Those that wish to specialise can certainly take further courses in those subjects. Organic chemistry, Pharmacology and Forensic medicine though do not worry a student much, examination in those subjects seems superfluous. These opinions are expressed here not in the interests of the students only but in the interests of the country's first need. Of course the exceptionally brilliant and those that have an aptitude for higher studies can certainly take up extra post-graduate studies. For this we know India can contribute many. Hence here is no question of science being sacrified for the sake of dire need.

Regarding the other knotty problem of unification of different systems though difficult to resolve yet it is not without a solution. Every one deals with one definite entity called disease. In these days of science with the increasing knowledge of the universe it is uncomprehensible how a planet or a Rahu can cause distrubances in one human body surrounded by a million healthy ones. If such terms refer to the immediate surroundings it is social medicine. Scientific medicine the so-called allopathic medicine is always a growing one. It has no deaf ears, has no blind eyes. As such if there is any truth in ayurvedic or unani it must be in the effect of drugs. As such these drugs should be submitted to an impartial research office. If those prove their worth include them in allopathy and rid the country of many a nincompoop. Anyhow it looks reasonable to convert these schools into research stations and save the youth of the country from superstitions and bad education.

Hostels :—It is indeed a common cry from every quarter that there is no accommodation. Just as a baby is looked-after first in the house, so should the young scholar—the future citizen—should be looked after. Baby's needs are few and so are the scholar's needs. After all to build a hostel needs no extra intelligence. When big projects are constructed in a few years time, to build a hundred hostels in one presidency is no problem at all. Students do pay the maintenance expenditure. A bit of capital is all that is necessary. Bricks and mortar are available in plenty. There is no dearth of labourers.

Men Students' Hostel:—The parents who come to see their beloved sons are at a loss to know that they are far away from their college. A visitor to Madras will be surprised to see a hostel and no college near by. Students of a Professional College always come from different parts of the country and as such it is but natural that such a college should be a residential college. If the strength of a college is 1,000 and yet the hostel can accommodate just 300 with all difficulty it is not worthy of a great institution like ours. It is the warden who inspires a student and as such there should be a residential warden. One cannot imagine a hostel without a residential warden but yet we have one. Can these defects be rectified soon?

Women Students' Hostel:—A casual visit to the hostel will give an idea that it is a house for twenty members but it has to accommodate a hundred. Every available space is converted into a room so that an impartial observer will say that it is a decent goal for ill-behaved girls rather than a hostel for the students of a reputed medical college. If one knows that the hostel is going to be covered by a row of buildings in front leaving no ground for games it is still more regrettable.

If the government authorities consider it urgent to build a hostel for nursing staff, it is equally urgent for the future doctors.

Finances of the Magazine

Under the able guidance and help of our treasurer we have been able to clear the old and new bills. We have been able to get 3 issues for the academic year; it is indeed a remarkable progress. We wanted to give 4 numbers in this volume but due to lack of time and dearth of articles we could not produce more than three. We have not lagged behind any of the past achievements. Yet we feel that if all students take it as a hobby to write articles we may get more material and better material too. The golden key which opens the palace of eternal beauty is the spirit and so we wish that every one will adopt this spirit of adventure to create art. Indeed art is the creation of beauty and there is no one who does not cultivate the love for beauty.

MADRAS MEDICAL COLLEGE MAGAZINE ACCOUNTS

Submitted by Rao Saheb Capt. Dr. D. Sivasubrahmanyam, M.R.C.S., (Eng.), L.R.C.P. (Lond.,) Treasurer & Vice President.

1947—48.		Receipts. Rs. A. P.	Expenditure. Rs. A. P.
Collections from Students	...	2,922 0 0	
Cash certificate cashed by Principal and credited to Magazine accounts	...	956 0 0	
Advertisement Keymer & Co.	...	42 2 0	
Gordon & Co. debts (1946-47)	...		2,900 0 0
Ravai & Sons (1947-48)	...		780 0 0
Papers and Periodicals	...		128 3 0
Clerk's pay	...		16 10 0
Impressed cash (Jayaramachandran) Voucher not received	...		20 0 0
Bank charges	...		2 0 0
Balance in Bank	...		973 5 0
Total	...	3,920 2 0	3,920 2 0

1948—49.		Receipts. Rs. A. P.	Expenditure. Rs. A. P.
Balance B. F.	...	973 5 0	
Collections from Students	...	3,636 0 0	
Advertisement charges	...	748 6 0	
Printers old accounts (1946-47)	...		650 0 0
Ravai & Sons (1948-49)	...		2,027 0 0
Paper etc. bought by the Editors	...		829 13 0
Photo Charges	...		32 0 0
Periodicals	...		272 8 0
Editors expenses	...		148 0 0
Bank Commission	...		2 4 0
* Balance in Bank	...		1,396 2 0
Total	...	5,357 11 0	5,357 11 0

* *Note*:—The accounts have been made up to 14—6—49. Printers bills for the 3rd issue of the magazine and any other bills of the Editors have yet to be paid.

(*Sd.*) **D. SIVASUBRAHMANYAM,**
Honorary Treasurer & Vice-President.

MADRAS,
14—6—1949.

Madras Medical College Magazine Accounts.

Short Story Competition :—We had conducted a short story competition in March. There were four competitors. The Committee of judges decided to award the prize to the author of " The Kismet " by Miss Lakshmi Kumari. The story appears in this issue.

Our Association :—We welcome the government's order banning all linguistic, communal, and political associations in all colleges. So each college will have only one association which means unity—the cherished ideal.

We have done our duty, we thank you all for helping us to render this bit of service to you with success.

— Adieu !!! —

There is a tide in the affairs of men
Which, taken at the flood, leads on to fortune.

—Shakespeare—Julius Caesar Act 4, Sc. 3.

The Moving Finger writes ; and having writ,
Moves on ; nor all your Piety nor Wit
Shall lure it back to cancel half a line,
Nor all your Tears wash out a word of it.

—Omar Khayyam—Rubaiyat.

Dr. S. K. Sundaram

[We thank Dr. Raghunathan for giving us a short biography of Late Dr. Sundaram—the great teacher, clinician and physician.]

—*Editors.*

Dr. S. K. Sundaram, B.A., M.D., came of a very distinguished family belonging to Pudukottai. He was born in June 1900 at Mathurai and had his early education at Bangalore. He graduated from the Presidency College, Madras, with Chemistry as his optional. After his graduation he joined the Madras Medical College and took the M.B.B.S. degree in 1925. His academic career throughout was brilliant and he narrowly missed the Johnstone medal - the blue ribbon of our College.

After his graduation, he served for a short time as a Demonstrator in Anatomy in the Madras Medical College. Entering the Madras Medical Service, he was posted first to Mathurai and very soon transferred to Tanjore as a Lecturer in the Medical School. At Tanjore Dr. Sundaram became very popular with the students and the public who appreciated his clinical acumen and erudition. In 1930 Dr. Sundaram was the first person in taking the M.D. in General Medicine, which was quite an unique feat in those days. After serving at Madras and Vishakapatinam, Dr. Sundaram was temporarily posted to the Bio-chemistry Department of the Madras Medical College in 1934. In 1937, he was posted as assistant to the Professor of Therapeutics in the same institution. Early in 1939 he went to England for higher studies but due to the outbreak of war, he was recalled to India and posted as assistant to the Professor of Medicine in the Madras Medical College, which post he held till September 1947 when he was promoted as Professor of Therapeutics.

Dr. Sundaram was a brilliant clinician and teacher. He was always scientific in his outlook and very uptodate in his knowledge, reading all the latest medical journals available. I am sure generations of medical students who had the good fortune to come into contact with him will never forget his lucid exposition of medicine especially by the bedside. He was very much interested in research especially in "Diseases of the blood". His original and outstanding contribution to the subject being the use of refined liver extracts in Tropical megalocytic anaemia. He contributed in no small measure to a proper understanding of the 'Anaemias' and a rational handling of patients suffering from the different types. His succinct views have been clearly set forth in his lectures on "Anaemia" delivered in 1944 as "The Maharajah of Travancore Curzon Endowment lectures" under the auspices of the University of Madras and his original article in "The Lancet" of 1948.

He was an active member of the Association of the Physicians of India and took part in the various scientific meetings of the Association. Dr. Sundaram till his death was secretary of the Madras Medical Association, in whose affairs he took a keen and vital interest. His knowledge of the service regulations was always at the disposal of his colleagues who eagerly sought it. Recently Dr. Sundaram took a very active part in the reorganization of medical education.

Though at first sight he appeared to have a gruff exterior, those who intimately moved with him knew he had a heart of gold. With his genial disposition, he always attracted a large circle of friends. Highly conscientious and a man of great ideals Dr. Sundaram was universally respected for his high conduct, integrity, professional skill and above all incorruptibility.

An ardent nationalist, Dr. Sundaram used to wear only khaddar from 1921.

In his death the medical profession has sustained a great and irreparable loss. As the Hon'ble Mr. Shetty has said "In him we have lost a physician of the first rank, a clinical teacher of outstanding ability and a man of sterling character."

May his soul rest in peace!

I wish to preach not the doctrine of ignoble ease, but the doctrine of strenous life.

—*Theodore Roosevelt.*

Dr. S. K. Sundaram Memorial Fund

Admirers and students of the late Dr. S. K. Sundaram, propose to perpetuate his memory in a suitable manner in the General Hospital Madras, which he served for about 15 years. As the Hon'ble Mr. Shetty has said, 'In him we have lost a physician of the first rank, a clinical teacher of outstanding ability and a man of sterling character,' his example should be before the medical students of the future generations and it is proposed to make the memorial provide for practical help to one or more poor deserving students in the Medical College irrespective of caste or creed. It is hoped that his numerous friends and past students will contribute generously to the fund.

A committee consisting of the following persons has been formed for the collection of the fund :—

1. Dr. J. A. S. Masilamani, M.D.,
   Honorary Physician, Govt. General Hospital,
   Madras.
2. Dr. U. Mohan Rao, M.S., F.R.C.S.,
   Honorary Surgeon, Govt. General Hospital,
   Madras.
3. Dr. V. S. Raghunathan, M.D.,
   Honorary Physician, Govt. General Hospital,
   Madras.
4. Dr. S. A. Kabir, M.B.B.S.,
   Senior House Surgeon, Govt. General Hospital,
   Madras.
5. S. P. Dhanda, Esq.,
   Secretary, Madras Medical College Association,
   Madras.
6. Miss. Irene Pinto,
   Ladies' Representative,
   Madras Medical College Association,
   Madras.

Dr. V. S. Raghunathan will act as the treasurer. Subscriptions may kindly be sent to

Dr. V. S. Raghunathan,
5, Surya Rao Road,
Madras—18.

MADRAS,
18—3—49.

Yours faithfully,

V. S. RAGHUNATHAN.

IN MEMORIAM

Late Dr. S. K. SUNDARAM, M.D.

IN MEMORIAM

Major A. EDWIN SUNDARESAN,
M.B.B.S., Ph.D. (London), M.R.C.P. (Edin.), Pathologist, F.R.C.P. (Edin.)

We regret to announce the death of Major A. Edwin Sundaresan, son of the late Mr. Asirvatham, Deputy Collector, and son-in-law of Dr. S. Simon (Burma Medical Service, Retired) on May 31st, two days after he was involved in a gun-shot accident at Dibrugarh, Assam. Major Sundaresan, M.B.B.S., Ph.D. (London), M.R.C.P. (Edinburgh) was on the staff of the Vellore Medical College before he left for England in 1939. After taking his M.R.C.P. and Ph.D., he was one of the few Indians to specialize in Pathology. Joining the I.A.M.C. in England, he came to India as a Major and acted several times as Lt. Colonel and served in the Middle East for some time. He joined the staff of the Madras Medical College in 1945, was later appointed as Professor of Pathology in the Assam Medical College, Dibrugarh in September 1948. Just after his sad demise news came of his being elected to the F.R.C.P.

For sometime he was Treasurer of the TOCH in Madras and Secretary of the S. C. M. in the Madras Medical College. He took a keen interest in instituting the Medical Students under his care in boxing, being a good boxer himself. He was also a good singer and helped with the choir of St. Andrew's in Madras and was a member of the M. M. A. He could paint well, and some of his oil-paintings were exhibited recently in the Art Gallery of the Madras Swadeshi and Khadi Exhibition. He was a fine swimmer and tennis player and an all-round sportsman, of a very charitable disposition and loved by all. He leaves behind his young wife and four children.

In the sad demise of Dr. Edwin Sundaresan we have lost a young eminent Pathologist. It is indeed tragic that he should be snatched away from our midst when he ought to have been enjoying the fruits of his labour.

The Crest.

[We are grateful to Lt.-Col. C. R. Krishnaswami, for explaining to us the significance of our college crest. The hand with the eye shows that the doctor should cultivate through experience the power of vision in his hand.] —*Editors.*

The crest is the Caduceus-the magic wand of the God, Hermes. It was the olive staff twined with fillets which were gradually converted to wings and serpents.

Hermes or Mercury was the messenger of Jove. One of his functions was that of conducting disembodied spirits to the other world and on necessary occassions of bringing them back. He was the guider of souls and the restorer of the dead to life.

Appollo had originally the wand which was an olive branch around which were placed two fillets of ribbon. Mercury who was the first to make a lyre, exchanged it with Appollo for his magic wand.

Afterwards when Mercury was in Arcadia he once noticed the serpents engaged in deadly combat—These he seperated with his wand hence the olive wand became the symbol of peace. The two fillets were than replaced by two entwining serpents.

The serpents, the symbols of immortality are appropriately united with the olive wand which was the symbol of Peace.

The serpent has obtained a prominent place in all ancient religions and initiations.

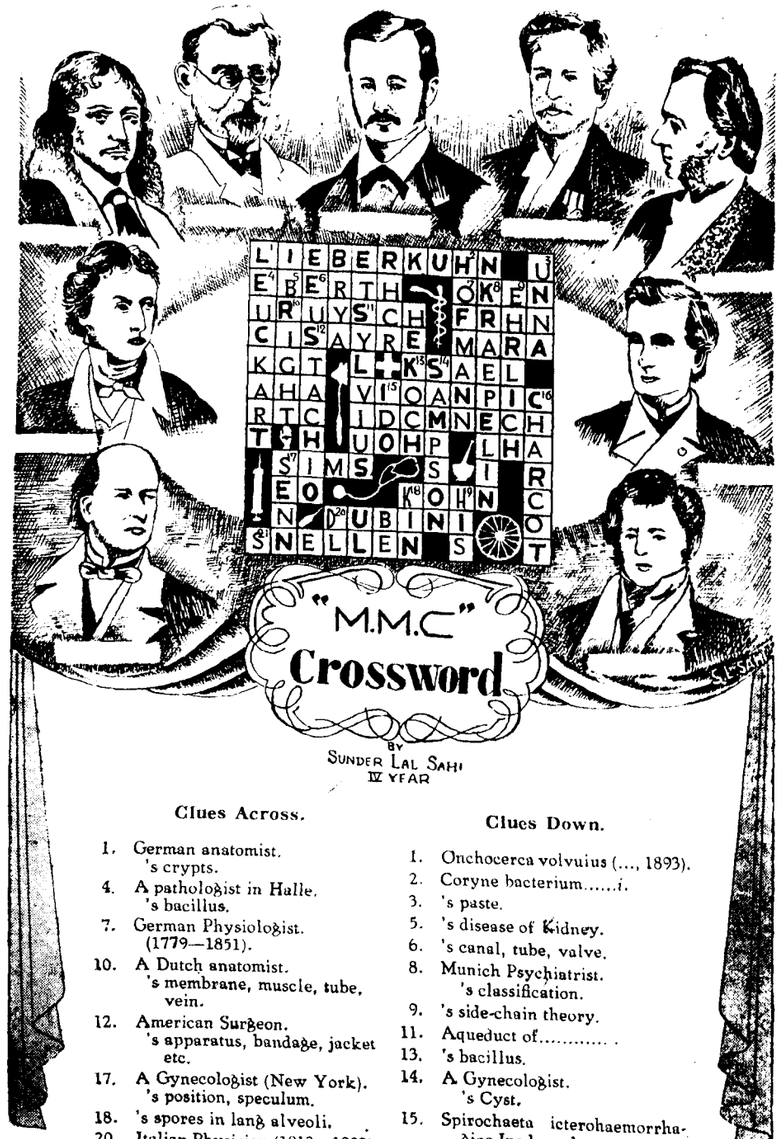
From the faculty which the serpent possessed of renewing itself, as to outward appearance, by annually casting its skin, it became, like Phoenix, the emblem of eternity.

Among the Egyptians it was the symbol of Divine wisdom when extended at length, and the serpent with his tail in his mouth was an emblem of Eternity.

In an explanation given of the ancient mysteries, the male serpent represented the great Father and the female serpent represented the ark or the world, the microcosm and the macrocosm.

Hence the serpent also represented the perpetually renovated world.

Of the serpents in the Caduceus, one is probably the male and the other female.



Clues Across.

1. German anatomist. 's crypts.
4. A pathologist in Halle. 's bacillus.
7. German Physiologist. (1779—1851).
10. A Dutch anatomist. 's membrane, muscle, tube, vein.
12. American Surgeon. 's apparatus, bandage, jacket etc.
17. A Gynecologist (New York). 's position, speculum.
18. 's spores in lung alveoli.
20. Italian Physician (1813—1902). 's disease.
21. Opthalmologist. 's test type, test etc.

Clues Down.

1. Onchocerca volvuius (..., 1893).
2. Coryne bacterium.....*i*.
3. 's paste.
5. 's disease of Kidney.
6. 's canal, tube, valve.
8. Munich Psychiatrist. 's classification.
9. 's side-chain theory.
11. Aqueduct of..... .
13. 's bacillus.
14. A Gynecologist. 's Cyst.
15. Spirochaeta icterohaemorrhagiae Inado and.....1905.
16. 's joint.
17. 's test, 's bone, 's plate.
19. Bundle of ..... .

Inguinal Hernia

[We are grateful to Dr. D. S. Iyer for having found time to contribute these articles of every great use to the students.]

—*Editors.*

In the operation lists of our hospital, "Operation for Hernia" is almost, an every day feature. In the operation notes, an equally common feature is the use of the expressions, "Bassini's operation performed" "Modified Bassini's operation performed." Abbasso Bassini described his standard operation for inguinal hernia in the year 1888. The years that followed have seen many modifications, so numerous as to make one doubt the efficacy of operative cure. Herniation through the inguinal canal is not a pathological entity and therefore cannot be treated by a routine operation. Its management is governed by local conditions and general systemic states. When a patient with hernia is seen a decision between treatment by truss or treatment by operation must be made.

Treatment by Truss:—A truss is a retentive appliance and has to be worn permanently. It does not cure a hernia but is only a temporising measure to prevent the descent of the hernia. Its prolonged wear leads to atrophy and fibrosis of the muscular and tendinous structures which form the walls of the inguinal canal. In infants and in children, the truss by persistently keeping the walls of the inguinal canal in co-aptation may facilitate fusion of the walls of the hernial sac. However, it is quite possible for a small knuckle of the sac to be left un-obliterated at the level of the internal ring and a hernia redevelop later. In the adult and in the elderly the pressure of the truss, can only have a valvular action on the inguinal canal and fusion of the walls of the sac is out of question. In the hernia bulging directly through the posterior wall of the inguinal canal, a truss is only like a plug. With these limitations a truss is indicated therefore 1. When there are obvious gross lesions like. cardiac disease, renal disease, cough, diabetes etc. which contraindicate an operation. 2. Age. Infants and children where there may be a chance for obliteration of the sac if the walls are kept co-apted. 3. Convenience. Economic circumstances or where the patient cannot spare time for the operation and postoperative treatment. A truss is definitely contraindicated in irreducible hernias or in recurrent hernias, with a short neck.

Injection treatment:—The objectives aimed are proliferative obliteration of the hernial sac and fibrosis of the deep parts of the inguinal canal. Repeated injections are necessary as much as twenty and a truss has to be worn during the treatment and for a long time afterwards. The sac must

be empty at the time of injection and must be kept empty after the injection. Leakage of the sclerosing fluid into the peritoneal cavity will cause intraperironeal adhesions. It is also not free from morbidity and mortality.

Operative treatment:—Before deciding on treatment by operation, it is essential to understand the anatomical and pathological conditions of an inguinal hernia. An inguinal hernia depends for its occurrence either upon the persistence of the funicular process of peritoneum however small in part it may be, or upon the defect of the valvular action of the posterior wall of the inguinal canal. The first is a developmental error, and superimposed on this primary cause, may be lipomatosis with degeneration of muscles and tendons or mechanical stretching of the musculature by a large hernia without any degeneration. In this type the hernia is conducted into the scrotum in the spermatic cord. The second type is due to degeneration of the posterior wall of the inguinal canal with thinning and fibrosis of the tendons and muscles. There may be also associated fatty deposits in the inguinal canal or in the muscles. The hernial bulge pushes its way through the posterior wall and the external ring in a straight forward direction. Such a hernia becomes scrotal only by its size. Trauma plays very little part in the development of a hernia but nerve injury following operations for removal of the appendix and kidney is the fore-runner of one type of degenerative hernia due to paralysis of the inguinal shutter.

A full recognition of the nature of the hernial lesion is therefore the necessary first step of the operative treatment. The functional efficiency of the inguinal muscles must be ascertained by putting the inguinal muscles in tension. When there is muscular degeneration, with every cough the hernia is forced, but if there is only developmental error, and good inguinal muscles a cough is not able to force out a hernia. In fat-laden people, the tone of the musculature can be improved to a great extent by dieting and active exercise for 2 to 3 months before the operation.

The operation:—Two incisions are used. The common one is an incision parallel to and above the inguinal ligament in the line of the inguinal canal. A transverse incision along the natural crease above the inguinal ligament is probably the better one as the scar is smooth and keloid formation does not occur.

The inguinal canal is opened along its mid-line by dividing the external oblique aponeurosis. The canal is opened at its highest level when the Willys-Andrews type of operation is contemplated.

The following conditions may present after opening the canal.

1. Healthy internal oblique and transversalis muscles with good tone and free from deposition of fat. The sac is in the spermatic cord. Incise the structures of the cord in seriatum, isolate the sac cleanly up to the level of the internal ring, open the sac and demonstrate that it is empty, and free from intraperitoneal adhesions at the neck, twist and transfix it at the neck by a ligature which is tied firmly and then excise the sac. In this operation, the whole sac and nothing but the sac is removed. The layers of the cord are then sutured without tension.

2. If the sac is very thin and closely adherent to the structures of the cord, a state of affairs met with in children the sac is divided transversely close to the neck and the neck is freed by dissection upwards and the distal part is left alone.

3. The hernia started with healthy muscles but has caused stretching of the rings and the canal by its growth and duration. The hernial sac is usually large and the scrotal portion adherent densely to the structures of the cord. In these huge scrotal hernias an attempt at dissection and isolation of the entire sac leads to serious oozing and loss of blood. Further the isolation of the sac is not an easy matter, in such cases the neck alone should be isolated and ligatured. After ligature of the neck and excision of the sac and closure of the layers of the cord the stretched conjoined tendon is repaired, by stitching it to the upper concave border of the inguinal ligament without tension. This is Bassini's procedure and is useful in those hernias where the muscles are stretched but are healthy. The deep-ring is reconstructed by this method of suturing the conjoint tendon medial and lateral to the cord so that it escapes without venous obstruction through the smallest aperture between the inguinal ligament and the conjoined tendon.

4. The posterior wall is degenerative. It is atrophic and fibrous and is the seat of fatty infiltration. The sac in this case is symptomatic of the weakness of the wall and its functional failure. When large it requires removal. It is in this type that bladder is implicated in the hernia and injury to it must be avoided. Closure of the neck is not possible by transfixion or attempt at high closure by torsion or twist is illogical. It is a bulge through a wide mouth and can be closed only by suture. Everything that will interfere with the development of a strong posterior inguinal wall needs removal. The fatty deposits in the canal must be removed, the cord must be reduced to a manageable size by removing liopmata and varices. Next the posterior wall of the inguinal canal must be reconstructed to ensure its valvular action. If there is sufficient slackness in the musculature, Willys-Andrews procedure can be

adopted. It consists of suturing the upper margin of the external oblique and the lower margins of the conjoint tendon to the inguinal ligament behind the cord. There should be no tension if this procedure is to be a success. It is therefore not suitable for many cases. Other methods of reconstructing the posterior wall must adopted. One method is to reflect a flap of the rectus sheath and suture it behind the cord to inguinal ligament. The defective area is however too large for this simple procedure. Repair by a fibrous tissue or the fascial graft derived from the external oblique aponeurosis or the fascia lata of the thigh is a useful procedure. Its success depends upon scrupulous asepsis, complete haemostasis and avoidance of tension. In the weak area between the inguinal ligament and the lower degenerated fibres of the conjoined tendon is darned a net of living fibrous tissue. The end result is a firm and strong fibrous posterior wall. The same object can also be achieved by darning the posterior wall with silk or chromicised catgut or linen thread. These re-constructive operations require efficient post-operative management. After operation they must be in bed sufficiently long to allow consolidation for fibrous tissue to occur and may be provided with a support for some time.

Hydrocele

A collection of fluid in the tunica-vaginalis, large enough to make its presence known, by a swelling of the scrotum is called, a hydrocele. This fluid is clear and straw coloured, contains a high percentage of protein, and its quantity varies. So far, it has not been possible to find an adequate reason for the appearance of excessive collection of fluid in the tunica vaginalis. The swelling appears without any previous pathology and the onset is not characterised by any signs or symptoms. When a number of patients have been questioned for an exciting cause, some attribute it to injury, some to pressure of bicycle riding; while a large majority are not able to attribute its onset to any particular reason. Its incidence begins after puberty and the maximum incidence is during the period of active sexual life. The size varies with the quantity of fluid. There is also a tendency for the affection to be bilateral, sooner or later. As regards which side is more often involved, there is little difference to choose between the two. Small collections less than an ounce are usually unilateral but larger collections on one side are usually associated with a small collection on the opposite side as well. This common type is known as primary or idiopathic hydrocele, and is not associated with any pathological change in the cord, epididymis or body of the testis. They transilluminate easily and the testis is enveloped

by the fluid in all aspects excepting the posterior. Changes in the wall as thickening, or calcification and in the contents as admixture with blood may abolish transillumination. It in this type that large sized hydroceles are met with.

The less common type is due to some local pathological lesion of the testis, epididymis or spermatic cord. Changes in the testis, cord or epididymis are present and can be demonstrated. The hydrocele is usually unilateral unless the opposite testis and cord are also involved; it is of moderate size and not very tense. Its onset may be acute or chronic. If the testis cannot be palpated easily in such a case it is better to tap the hydrocele, when the examination can be made with ease. It is, therefore essential to know before deciding on management whether the testis and cord show an underlying pathology and that the hydrocele is only secondary.

Primary Hydrocele:—It management may be palliative or curative.

Palliative treatment:—The fluid is removed by tapping with a very fine trocar and cannula. The fluid however reaccumulates, and in most cases to the same size in 3 to 4 months. This reaccumulation is quicker in the young and slower in the aged. Further, tapping is easy in thin walled sacs and difficult in thick walled ones.

Before tapping, the position of the testis must be identified by palpation and transillumination. The testis lies normally at the back of sac and low down. The best position to tap a hydrocele is with the patient standing up. The hydrocele is held in the open left hand, so that the thumb and the index fingers lie between the hydrocele in front and the testis behind. Next an area free from veins is selected, cleaned with an antiseptic. A local anaesthetic may be injected if necessary. Usually it can be omitted. The trocar is then held in the right hand with the forefinger lying along the cannula, so as to leave exposed about an inch of the cannula at the end. With the left hand keeping the hydrocele sac tense, the trocar should be driven sharply through the hydrocele sac. When the sac has been entered, the trocar is removed and the fluid pours out through the cannula. As the sac gets empty it is gently squeezed with the left hand and the tip of the cannula adjusted to remove the entire fluid. The cannula is then removed and the puncture sealed with collodion. Sometimes the end of the cannula may slip out of the sac and get into the layers of the scrotum. Fluid will then cease to flora. In such a case it is better to remove the cannula and reinsert it again with the trocar, in a second place.

Radical treatment is the Operative treatment. By operation the cure is complete and recurrence is exceptional. Two methods are employed, in the more common operation of turning the tunica vaginalis inside out, its secretion is absorbed by the scrotal wall, and in the less common one, the tunica vaginalis is excised in to or partially to diminish its secretion. The scrotum and the pubic regions are shaved and washed with soap and water. An antiseptic can be applied immediately if it does not cause severe pain and burning. This will be the case, especially, if the antiseptic is one which contains spirit. In such a case it is better to paint the skin with an antiseptic after the patient is anaesthetised. The scrotal approach appears to be the best, it is easy and haemostasis is better secured. The scrotum is gripped and the skin made more tense by the left hand so that a small incision will permit a large hydrocele to be brought out through the incision. The various layers covering the tunica vaginalis, are stripped off the tunica, in one sheet and every bleeding point is picked up and ligatured. The eversion procedure is suitable for small hydroceles with a thin sac. With thick sacs the results are not bad but it leaves behind a bulky testicle. It is done also as a prophylactic operation when the pampniform plexus is excised for a varicocele and in hernia operations of the inguinal type following much handling or teasing of the cord and its veins.

A small opening is made in the tunica vaginalis, the fluid is let out into a sterile receptacle, and the testis is brought out through the opening in the tunica vaginalis and thereby turning it inside out. The cut edges are stitched behind the testis and around the cord, without constricting the vessels of the cord. This eversion operation is always followed by oedema of the scrotum and scrotum and penis for a few days. This is inevitable, and is due to collection of the secretion of the tunical vaginalis in the scrotal tissues. It is temporary and clears up in a week or two.

The other operation for hydrocele is excision of the parietal layer of the tunica vaginalis. In this procedure there is bleeding from the cut edge of the sac. Every bleeding point must be caught and ligatured and must be supplemented by a continuous interlocking suture along the whole length of the divided edge. When available the use of a diathermy knife and cautery makes the excision of the sac and control of bleeding an easy procedure. It also avoids the leaving behind pieces of catgut. After dealing with the sac and the bleeding points, the testis must be put back in the scrotum without any torsion. The scrotal incision is then closed with sutures. There is no need to drain, if every bleeding point has been carefully secured and tied. If one is not satisfied and there is oozing it is better to drain for 48 hours through a stab wound at the most dependent part of the scrotum. Next a pressure bandage is applied. Scrotum is one of those parts that is very difficult to bandage and if the bandage is applied

tightly it will press the cord on the pubis and cause pain and swelling. I prefer to support the scrotum in a temporarised bag made of a triangular bandage.

Sepsis has now become an almost exceptional complication. I prepare these cases with a sulpha cover for 3 days before the operation and at the end of the operation, frost the wound with sulpha powder and keep the patient again under sulpha cover for 3 days following the operation. Haematoma occurs in spite of meticulous care to secure haemastasis, if small in amount and there is no tension in the wound, it should be left alone. If the sac gets distended with clots and the wound become tense and painful it is better to remove the sutures and allow the clots to be expressed out gently.

The patient is allowed to get up as soon as the swelling of the scrotum has subsided. This is possible in the majority in a week to 10 days. If the swelling is marked it is better to keep them in bed till it has subsided.

Injection Treatment:—The sac is first emptied and then a sclerosing fluid is injected into the tunica vaginalis. This set up an aseptic chemical inflammation which destroys the endothelial lining of the tunica vaginalis and causes fusion of the parietal and visceral layers of the tunica and obliteration of the sac. Quinine urethane is the substance I have used on a small number of patients. The quantity used was from 3 to 8 cc. The amount reaction following the injection varied. Sometimes it is severe enough to make the patient bedridden for a week to 10 days. Following the reaction, there is usually a reaccumulation of fluid, which gets less and disappears as the reaction subsides. If it persists without change after 10 days it must be aspirated and another injection made. The reaction is a prolonged one and takes about 2 to 3 months to disappear completely and effect a cure. It gives satisfactory results in small hydroceles or medium sized hydroceles with thin walls. The cases that I have injected have not recurred and the results have been very satisfactory. These, include three doctors who have been treated by injection and who are bleased with the results. If it disappoints, the conditions that follow are very unsatisfactory. The sac will be converted into multiple cysts and tapping or excision then is a very difficult procedure.

A word fitly spoken is like apples of gold in pictures of silver.

Proverbs XXV. 11.

Dr. S. Rangachari

BY

Lt. Col. C. R. KRISHNASWAMI, M.S.

A critical survey of the life of the Late Dr. S. Rangachari will be interesting and instructive to young medical men from many points of view. He forms that important landmark in the history of medical practice in the city when the better type of professional work passed from the hands of I. M. S. men to local graduates. The fear of resorting to surgical treatment in the minds of common men was dispelled by him by carrying the treatment to the very houses of the patients without transporting them to the strange surroundings in the hospital. The psychology of the patient was not much disturbed as he continued to live in his own familiar surroundings.

He, it was by his availability at all odd hours of day and night, had made the medical men realise that service to suffering patients must be put above their own conveniences. When once he had inspired the confidence of the lay public in his genuine and sincere desire for giving of his best to them, it was not difficult for him at a later stage to transport them from their own houses to a common nursing home for observation and treatment for it was from his days that nursing homes started functioning in the city.

To give a few salient points in his life: He came of a very good stock of Brahmin community in the Kumbakonam Area belonging to the upper middle class and being considerably above want, he did not suffer from the benumbing effects of crushing poverty as some bright men in our country have to and fight against terrible odds. Not being given to wayward habits, his loving parents did not have any difficulty in bringing him up and saw to it that he was maintained comfortably. His early scholastic and collegiate career was quite uneventful, and though he did not win any great prizes, yet he was always among the first few in classes. Similarly though he was much interested in games and sports and occasionally dabbled in some of them like Cricket and Tennis, his devotion to his studies and work kept him from wasting much of his time in play. Being tall and endowed by nature with a very sound physique which he preserved by careful habits he had quite a handsome and pleasing figure. His commanding personality contributed not a little to his success in life. No superior officer, however cantankerous he might have been would ever dare to boss over him. So in his official career there was an even tenor of very happy relationship with his superior officers and a very cordial one with his colleagues and juniors being by his nature very generous to a

fault. There were a few instances of a slight misunderstanding with some of his collegues and it used to be said that he interfered with their private practice. Could he be found fault with for relieving at midnight a man with retention of urine when his own attending doctor had refused to sacrifice his night rest? There were many instance when he had in the interest of the patient to step in, when the attending doctors out of fear of hurt to their self pride avoided a consultation with him even when requested by the patient. Himself, on the whole it must be said that if he broke any professional etiquette, it was not at all with an idea to get more practice and more money but to do the right type of service to the ailing man. What unfortunately happened in some cases was that the patients on later occasions started coming to him directly without reference to their original doctors. Many hardly knew how much he discouraged such a practice and how he had referred them back to their original doctors.

During the early tenure of his appointment as an assistant surgeon in the maternity hospital, he showed promises of a very bright future, being not only very quick in his work but also very hard working. At the Secunderabad hospital which was his next posting he made a great name for himself as a surgeon, careful physician and a good obstetrician and gynaecologist. At every other place where he was posted *viz.*, Mayavaram, Tanjore, Kumbakonam, Nagapattam and Burhampore he had wonderful practice. From the time of his second posting in Madras as assistant Superintendent maternity hospital and later as a surgeon in the General Hospital till his retirement in 1925, he had established himself as the leading practitioner in the city. With a break of about a year and a few months when first he took a holiday of six months in 1925 and later when he went on a continental tour he could be said to have been working at the rate of 14 to 15 hours in a day from the year 1918 to 1934. It is no exaggeration at all that he slept with the telephone at the head of his bed. In spite of the fact that he was vegetarian, a teetotaller and a non-smoker and a man of regular habits, when the final illness came, he had not sufficient resistance to overcome it.

He was a superb Bridge player, keen reader of general literature, very interested in fine arts like painting, sculpture etc. and a connoisseur in carpets. He had a passion for cars and was one of the earliest in the whole of India to be a private owner of an aeroplane.

His was a curious mixture of different mental makeups. He never courted publicity, but he always wanted to be the top man in any and everything he attempted. He was a man of few words but in a select and congenial company he can let himself go with an abandon.

He was not a good public speaker and it might be said he was almost a failure as a clinical teacher. But were he to write, he can put down his idea in a clear and cogent manner and in short crisp sentences.

He had aversion for unpleasant scenes as he always disliked giving offence to anybody. If he had only travelled and observed other great men at work in different parts of the world he would have been a different man. Extensive private practice is the grave of intensive study and high scientific and academic attainments, for the former hardly leaves either the time or the mental repose necessary for the absorption and assimilation of intricate modern developments.

Many members of the medical profession had been levelling charges against men in Government employ and those in charge of wards in the hospital that the latter were collecting fees in an un-official way or that they bestowed preferential care and treatment to such of those who had consulted them privately before admission into the hospital. Consideration of the propriety or otherwise of such a conduct will involve me in a lengthy discussion and is germane to the subject matter of this article. But it must be averred most emphatically that in all his long associations with hospitals, there was not one solitary instance of his acceptance of even a copper pie from a real or prospective hospital patient. That is a wonderful record worth emulating. It had been contended that since he was endowed with private means of his own, he could afford to have been what he was. But that is neither here nor there. You always judge the character of the individual by the way in which he reacts to temptations when put in his way.

I have always maintaned that if one has to choose between a man of A^1 ability but with C^3 character and another with A^1 character but only with C^3 ability, the latter will be a much better choice generally for the good of the body politic. In Rangachari there was a wonderful and happy combination of high professional ability and still higher character. It these days when character is at a discount, his statue at the entrance to the portals of this premier institution serves as a constant reminder to the entrants of the high ideals they ought to pursue.

Thou must (in commanding and winning, or serving and losing or triumphing) be either anvil or hammer.

—*Goethe.*

Being a House Surgeon

BY

Dr. M. K. R. KRISHNAN, M.B. & B.S.

[Usually Students envy the lot of house surgeons but on going through the article it seems to be a clear case of "distance-lending enchantment to the view" — to quote a famous proverb.]

—*Editors.*

After graduation, you want to work as a House-Man. Have you seen the application form that one has to fill up? You simply must.

What race? What community? What creed? What caste? etc. etc., they ask. Why all this nonsense? Nobody answers.

Some get annoyed, having to write all the answers. One man says 'Human race', and against caste etc. he says 'Hindu', bracketing all together. They set apart his application. They must know what you are.

He is appointed a House-Man anyway, an unpaid House-Man.

He must stay in the Quarters. He has no other place and so he stays.

He must mess there. He does it. Naturally, he must pay for the food he gets there (or is it food they get?) and he pays. All these from where? Well, you know the answer. And these are not the only things he pays for. As everyone knows, there are the EXTRAS to take, as what they give in the Quarters is not enough for you to stand the strain, and therefore you pay EXTRA. Besides there are the guests you feed, there are the raffles, any number of them, Nurses' Balls, Sister Singh's Christmas tree for the children, Lady Hope School Annual Day and a thousand other things.

It is his admission day and he must report there at 7 A. M. as otherwise there is always an R. M. O. to book him. How do you expect the R. M. O. to know that 'X' comes from Villiwakkam?

Anyway, he is there at 7 A. M. and when do you think the patients come? At 7-30 A. M.! Oddly enough, you meet just the fellows you can't deal with easily. You want to admit a fellow hot with fever and he tells you he must inform his wife and six children! A cirrhosis-liver man begs you to admit him because he has come all the way from Godavri, for medical aid. Ofcourse, there is no end to anky anaemias, that you don't know what to do with them. If you stay there too long, there are the 'Old-ticket-wallahs' to pester you. 'Go to Room No. 10' you keep on shouting. But at that hour will they find anyone there? However, it is none of your business.

You have finished and you wait for screening, but surely you haven't forgotten the Radiologist won't be there before 9-30 A. M. ?

At 10 A. M. you feel like having a cup of hot coffee. At this hour you do get something hot, but it is certainly not coffee. You drink it all the same. You need it.

Back at the Ward at 10-30 A. M., you try to begin your injections. The syringes are just on the boil. You want to draw blood. There is only a leaky syringe. You can at least give some of the special injections, instead of wasting time, but the Staff-Nurse has locked these up in his cupboard, taken the key with him and gone for his INTERVAL!

So you are left with the leaky syringe. You draw the blood of somebody, spill it on your coat and ask the nurse to 'Please' wash the syringe while you try to remove the stain when it is fresh. She says 'No' and 'Hospital Order such and such'.

So you give the injections yourself, wash the syringes yourself and when it comes to breaking them, then also it is yourself and this is natural. Giving the injections, mind you, includes things like Penicillin every three hours.

The leaky syringe will always be leaky and it will always be there, till someone breaks it. But do you think he gets away with it. 'Replace and CHARGE' says the R. M. O. Can you blame him? So you include this in the house-Surgeon's Bill. Nobody realises a glass syringe won't last for ever.

As there is only one syringe for you, as some one else is using the other syringe in the Ward, you will have to boil it each time you give an injection. But there is no gas coming. Have you forgotten there is an oven in every Ward? There is no charcoal. Or if there is, the Ward-Boy is missing. He has just taken a memo somewhere. And incidentally, you know what happens to them when they take a memo. 'Never mind', you say, and light the oven yourself.

It's getting late. So why not examine some slides meanwhile? But you forget the other House—Surgeon in the Unit is using the microscope.

Do you get vexed? Certainly not. Let's see some urines, you say. Where is No. 22's urine? Not saved. 'Ram' you shout. There is an answer, thank God! But it is not him. Somebody says he has gone for INTERVAL. So you see, everybody has his INTERVAL, except the House—Surgeon. But he doesn't mind.

You remember, the House-Surgeon soiled his coat some time ago? Can he get another coat? You know the answer. So he decides to stitch his own coats. But what do you think happens. He finds his coat missing one day. The Boy in the D. A. S's Quarters has taken all to the Laundry. He thought yours was a G. H. Coat. Atleast, that is what he says. You are lucky if you get yours back. I got mine.

It is time for the Boss to appear any time now. You repeat the prescriptions. 'Superintendent's signature wanted', 'Out of stock', 'Indented', etc. he says in different places. You can't blame him.

You send a memo for penicillin. The ward-boy brings it back and says 'Late, past eleven, Sir'. Who the hell cares? It is no for you.

You then give out all instructions to the nurse. Sometimes, it may be a raw probationer who gives out the medicines. You tell her, Ung. Danish is for external use and not to be swallowed. She may turn round and say 'Doctor, what do you take me for?' You just gulp it.

You want to take No. 30's B. P. The screw is missing. You borrow the other man's apparatus. There is no Leishmann's stain in the Lab. sometimes. The centrifuge does'nt work. You want to write 'Y's' casesheet, seated comfortably under a fan. But does it work? These are only some of the things that just don't put a House-Surgeon out. He goes on and on. It's his job.

And so your three months in the Unit are over. You want to go to a Surgical Unit next. You are posted to the Dental Dept.! Who cares?

It is annoying sometimes. There is no holiday for you. The B. I. R. is closed on Sundays. So are the other departments attached to the hospital. When the hospital works, why shouldn't they? Nobody answers.

Every body has his day-off, the nurses and Ramas and all. All except the house-surgeons. For him there is no leave,-not the way others have it. Somebody has to be seriously ill at home. Somebody has to die. He can't just take a day-off, just for nothing, just to relax. He can't be violent, if his leave is refused. Remember, you are a Govt. Servant. There are rules and regulations.

Is a House-Surgeon a Gazetted Officer? Certainly not.

Is he just an N. G. O.? I think not.

What is he then? God only knows. Or does he?

Lest We Forget

Sarojini — The Doyen of Indian Womanhood.

Sure, a poet is a sage
A humanist, physician to all men.

—*Keats.*

Daughter of Aghorenath Chatterjee a doctor of Science, educated at London and Cambridge, Miss Sarojini took to poetry regardless of her father's wish to make her a Scientist or Mathematician. Retiring home imbibing the spirit of free living unfettered by the old and withering laws of religion married a non-brahmin, Doctor Govindarajulu Naidu. Again breaking the passive attitude of a Hindu woman joined politics and sincerely served the country under Congress for over 30 years till her death. She had a very lively spirit and her eloquence never failed her to answer new affronts. I remember well a public meeting at Hindi Prachar Sabha in 1944 arranged under the auspices Students of Madras. A girl introducing Sarojini to the audience attacked the Congress lacking leadership especially with respect to students. The girl said students are asked by every high ranking leader to unite solidly behind Congress for the final struggle for freedom. But to the astonishment of all the so-called leaders went behind the bars without leaving a word. Behold, the mother Sarojini coming to the platform slowly gaining Confidence of the audience with a short account of what was happening in the country raising her hands to the tune of her voice. "I may take you to the heights of heaven or to the depths of hell but it is yours to decide. There is no rule in the struggle. It is just non-cooperation".

Above all she was one who could keep merry all the serious men of Congress talking to one and all, joking at every one and providing them an occasion for a refreshing laughter. On the day when she was giving the money (75 lakhs) collected for Kasturba Fund, to Gandhiji she asked him "What will you do if I run away with this"—a joke at the right moment, a joke to forget the loss of his wife. Though she had responsible positions to assume on many occasions like President of Congress at Cawnpore—1925, Governor of U. P.—1947 or she kept her mind always at ease, composing poems, meeting poets, addressing journalists etc. Indeed she denied 'uneasy lies the head that wears the crown'. Gandhiji always loved to call her 'The Nightingale of India' Gokhale admired her as "A song bird with a broken wing".

I remember reading her two poems 'Bangle Sellers' and 'merry fishermen of the Coramandal coast' when young. A bible prize brought me "Temple Bells" with an introductory song by sweet Sarojini on

by C. Mallikarjuna Rao

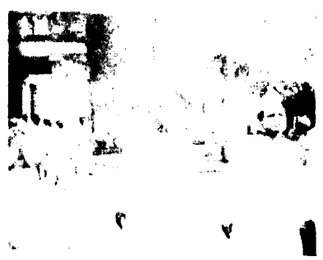
Sir C. V. Raman at our College.

by C. Gopalan

Our Students. They won the Inter-Collegiate dramatic Competition.

Madam Bhaskar Rao

Winner of the Fancy Dress competition



by Deva Prakash

Dr. Pattabhi Sitaramayya an old alumni of our College addressed us.

Temple Bells. Never did I know the significance of these noisy bells which decorate every temple. I would like to read it again and again—it indeed gives me never-ending joy. I remember her brother Harindranath Chatterjee—the poet of Madras addressing our association at Madras Christian College. His subject was a contrast 'Poet *vs.* Politician'. His examples were Rabindranath *vs.* Gandhiji. He would chide Gandhiji for walking naked and using the nude charkha. But the beautiful beard of Rabi, shining silk of Rabi's dress will always enchant him. It looked as though poetry was the inheritance of chatterjees. She had two sisters—Sunalini who had a film career, Sahasini who is a interested in politics. Her son Dr. Jaisurya is a homeopath. Her first daughter Leilamani was a professor but now is in External affairs Department. The young Padmaja her second daughter seems to be interested in journalism.

—N. Krishnamurthi, M.A.

SAROJINI—The Nightingale

With the death of Bapuji, the "*Light of India*" has gone and with the death of Sarojini Nayudu the golden flute of Hindusthan has broken to pieces. That was a calamity so unexpected and unbearable.

"Placing the hands on my forehead, Death asked me with sweetness "Oh! darling shall I save you from the difficulties." That was what the Nightingale of India wrote on 'Death' and it comes to our mind when we think of her last moments. Though she was ailing for some time at the Government House, Lucknow, her death was so sudden and a shock to all. When some of my friends told me that Sarojini was no more, I could not just believe it. It was so unbearable—to think of India without Sarojini. The same feeling of sadness which over whelmed me when I heard the assassination of the 'Father of the Nation' overtook me on hearing Sarojini's death.

Barring the death of Gandhiji, Sarojini's death was the one that touched the hearts of all types of people in all walks of life. She had an individuality of her own which attracted everyone to her side and made, him feel proud of himself. Amongst the national leaders, it is doubtful whether there is anybody else who is loved by all alike. Whether one is a Socialist, Congressman or a Communist, Sarojini is never his enemy. Whether one is a dreamer or unbeliever in God, she behaved in the same way towards all. She was a friend of the Rajas and Maharajas and at the same time a friend of the fire-brand Communists who swear by Marx, time in and time out. It is impossible to find any other national leader with such a kind heart. If Bapuji formed the heart of our freedom fight, then Sarojini gave life to it.

She was a true revolutionary. In every walk of life, she brought about revolution. Her marriage itself was a revolutionary one. She, a Brahmin by birth, married a Nayudu to the astonishment of the then powerful orthodoxy. She brought the same revolutionary spirit in politics also. Those days when she entered public plat forms, she performed the double role of a real representative of the women folk of India and of a powerful, brave, national leader. In 1906 Gokhale paid glowing tributes to her talents. When she talked about the greatness of India's destiny and the revolutionary message of the Congress, her words were so assertive that they looked like a flood with all its fury.

As a girl, Sarojini was a dreamer of dreams. Quite early in life, she started writing her beautiful poems. She herself has told an interesting story of how she became a poet. "When studying, I was thinking seriously of a sum in Algebra and all of a sudden a poem came to my mind and I wrote it down". As a poet she was head and shoulders above all. She became a poet when she was studying in England. Though she was not successful in the beginning, under the able guidance of Arthur Simons she became a great poet. Later, she interpreted to the outside world the heart and soul of India. But she had to sacrifice all her literary talents at the altar of freedom fight.

She concentrated all her efforts on the Hindu-Muslim unity. Though she found to her surprise that the man whom she named as the Ambassador of Hindu Muslim 'Unity' actually came to be the Ambassador of Hindu Muslim 'Disunity', undaunted by these failures, she forged ahead and was almost successful to the very end.

But it was Gandhiji who changed her outlook completely. From the day she met him, she came forward whole heartedly for an open fight with the alien Government. The Massacre of Jalianwallabagh in the Punjab pricked her, she took an oath to shake the whole world of the 'West' to its foundations, for the injustice done to her countrymen. From 1925 onwards, when she presided over the Kanpur Congress, she was a member of the Congress Working Committee till she was appointed as the first woman Gevernor in Free India.

Presiding over the first Asian Conference, she gave a clarion call to the people of Asia to wake up and stand united. She said "Asian comrades, my dear friends, awake. We the indestructible sons and daughters of the East, we have to teach the world a lesson. We have reached the end of darkness. We the sons and daughters of the East have to march forward to the wake of dawn."

What further tributes can we give her except to quote the words of one of India's greatest sons, Jawaharlal. "Whatever we have achieved I think we owe it to Sarojini Nayudu. What I am to day is partly due to the inspiration from Sarojini Devi. When I heard her 33 years ago from the platform of the National Congress I was greatly thrilled as I was thrilled later whenever I heard her..... ".

"Though Sarojini Devi's strength ebbed out, her indomitable spirit holds aloft. Men and women of this country, have you the spirit to carry the torch and hold it aloft? May it be given to us to give India what she gave..... ".

"The captains and kings of my generations depart. Old friends and dear comrades pass away. Now the dearest and brightest of them is gone. I feel desolate of heart and willowed in spirit..... ".

Speaking at the Indian Parliament, the Prime Minister of India said. "She was the Governor of a great province with many great problems and she functioned with exceeding ability as can be judged from the fact that everyone in that province, from the Ministers to the ordinary workers and peasants, have been drawn towards her.... But it is not as a Governor that I should speak about her, she was much greater a person than a Governor is normally supposed to be..... ".

"She began life as a poet and in later years when compulsion of events drew her into the national struggle she did not write much poetry with pen and paper, but her whole life became a poem and a song. She infused artistry and poetry into our national struggle just as the Father of the Nation infused moral grandeur and greatness into that struggle. She brought that indomitable spirit which not only faced disaster and catastrophe but faced them with a light heart; with a song on her lips and a smile on her face..... ".

"She became an interpretor in India of many great things, the west has produced and also an interpretor of India's rich cultural heritage. A rare being, a rich and precious being, is no more and that is sorrow for us. And yet it is something more than sorrow. It is if we view it in another light, a joy and a triumph that the India of my generation has produced, such rare spirits which have inspired us and will inspire us in future..... ".

Her service to the motherland, her confidence in the Mahatma and the musical brilliance of her oratory—all these things made her the greatest woman, India—nay the whole world—has ever produced.

When the ministers and congress leaders talk of a memorial to her, one is reminded of the writing of Wilhelm Leibknecht on "Marx's Grave". There he writes: "Marx did not want a memorial. To have desired to put up any other memorial to the creator of the "Communist Manifesto" and of 'Capital', than that which he had built himself, would have been an insult to the great dead. In the minds and hearts of millions of workers who have united at his call, he not only has created himself a memorial more lasting than bronze but also created the living soil in which what he taught and desired will become and in part has already become a consummated deed."

In the same way, to think of a memorial for Sarojini is an insult to the memory of the dead. Indeed, the whole of India stands as a memorial to her. Let us take the solemn pledge of putting into practice what she wanted to do for India and not rest satisfied with naming some obscure streets after her or erecting a statue for her, and thinking ourselves that we have done our duty towards her. In the case of Gandhiji also, people contribute something to the Gandhi Fund and contend themselves of having done the best towards him. But, such things can never be memorials for them, and Gandhiji and Sarojini would have died in vain if we are to be easily satisfied with them.

The spirit of Sarojini still hovers round us, watching and guiding us. I feel at this moment like repeating a sentence dropped from her own lips on the passing away of Gandhiji "May his soul rest - not in peace - not in peace". Let our prayer about her also be, "May her soul rest - not in peace - not in peace."

—*By K. Ramavarma, B.Sc.*
[2nd Year, M.B.B.S.]

Kismet ??

BY

M. S. LAKSHMI KUMARI *(IIIrd year.)*

[Stark realities of wealth and poverty existing side by side in India at present are depicted well in this prize-winning short story.]

—*Editors.*

"What is it you want? Neither money nor cattle have I. The tax collector was here only yesterday. So I have nothing. Oh, only a cup of milk, is it? Well, traveller, where do you live? I am a poor old woman. God have pity on my gray hairs! Sit down. I will tell you a story. Don't pay any attention. It is after all only the jabberings of an old woman. Here is some water. Drink. At least that is free, for it is all I have. I want no money. I have none, no son, no daughter to give to. What does it matter how I live? I am only waiting for *Yama*† Well, traveller, sit down. It is so sunny. Do you know the Zamindar of P—? Of course, the family was large. He was cruel but which landlord is not? I was a nurse in their family. Many were the children who have passed though my hands. I feel my life withering in me at their fate. Of all I loved the youngest best. He was sensible and kind. He worked for the tenants. His father used to thrash him. But it was of no use. Why, he gave my husband so many hundreds to settle his debts, for he was a kind boy. What about the debts, you ask, do you? My husband was a cruel man—a drunkard. He wasted his all in the toddy shop, not that I blame him. His was a hard life but mine was harder for I bore all the blows and taunts. I had three children. The eldest Shajir used to till the soil and work. The second one was a fire-brand from his youth. He used to say, "the Zamindars make us work too hard. We are paid too little. We must fight. We have been passive for too long. Death, death to the tyrants. My brain used to whirl at his ideas". "To rebel against the landlord! A crime unthinkable! God willed it." I used to say. "It is fate, Kismet. Ambition is like the monsoonish sea ever grand and ever perishing. Coral-like the landlords have stood the tide of time". He used to reply, "As long as society tolerates the lording of one man by another so long will there be tyrants who sanction the ruin of the poor. We are clinging like limpets to the ageless rocks, blind and motionless pouring our faith to a pious reading of the dead past without seeking to convey its emotion for the enrichment of the future. The occasion is opportune. The fruit is ripe. It is for us to pluck the fruit. When a tree, root and leaf. This zamindari system has been existing tool ong. It

† Yama: The god of death in Hindu mythology.

is for us to destory, this evil. Life is good as long as there are no capitalists and labourers. All are equal". It was this philosophy he dinned into my ears I was scandalised. He was too old to be beaten. What could an old woman do; My husband went his way. I could only watch and pray. I tried to guard my third son from the corrupting influences of the second but it was of no use. The third was also becoming refractory but he was young, only ten years or so. He would grow out of it. Sarkar, my second boy came home at late hours. To all my reproaches he turned a deaf ear. He was secreting weapons. We were a peaceful family. What did we want with weapons? To all my questions he was deaf. I prayed and prayed and prayed. I wearied God with my prayers. I asked Him to kill my son but not let him do anything wrong. Then the Famine came and it was wrose still. We lived on what we had. It was not much. The zamindar confiscated our poor stocks, such as they were. My second son would not let them do that without a protest. He lifted his hand against the zamindar's servant. The servant fell on the ground hurt. I thought him dead. With a wild whoop and a yell Sarkar fled. "I will return again"! he cried. Now what was I to do? My husband, the drunkard drank away our food. He bartered away our belongings for a drink. He was always a drunkard but of late had given himself up to toddy. He had sold himself body and soul to drink. Its maddening influence upon his brutal temper rendered him more and more impatient of control. The disease grew upon him, for what disease is like Alcohol? The fury of a demon possessed him. A more than fiendish malevolence, alcohol nurtured thrilled in every fibre of his frame. He committed sins that would so jeopardise his soul beyond the reach of the infinite mercy of the most Merciful and most Terrible God. The moodiness of his usual temper increased to hatred of all things and of all mankind. From the sudden frequent and ungovernable outbarsts of a fury to which he now blindly abandoned himself. I, his uncomplaining wife alas! was the most usual and the most patient of sufferers. The pallor of his countenance had assumed a ghastly, ghostly hue. Till now he lived to drink, now he drank to live. His waking moments were all spent in the toddy shop and late at night he would stumble home cursing mankind. Then the least noise would anger him and I to this day bear the effects of his anger. One day he beat my last born. When I protested, my interference goaded him beyond endurance. He buffetted me cruelly, trampled me and left me for dead. Then he ran away. The morning found him lying in the stream drowned. I was widowed. God had not even then done with me. I was to learn what a human being can bear and yet live. Alas! The youngest child cried as if his heart would break. The morrow dawned. I prepared a meal with the last handful rice. I dared not think of the next meal. We who never begged were now destitute. What about the Zamindar, You ask? My second son was correct. I asked for food. It was my right as the nurse of the family. They told me "No, no rice. What we have is enough only for us. Get gone you beggars. If

you persist you will get blows". Yes blows, I was told. I soon experienced even that for now I could see my children dying in front of my eyes. I had borne, nurtured and reared them up. My eldest was always a sickly boy. Why linger over a tragedy? He died! He died! What agony was mine. Do you want to go? It's but natural for you to go. What can you know of a mother's agony? It was as if part of my body died with him. I became deadened. Our house was the first bereaved home. All the others had hidden some grain. I trusted blindly and was betrayed. Now there was none to look after the fields. When the bania pressed for his money I gave up the fields. We had only our hut. Little by little, I pawned everything. My jewels went first, then the cots, last the cooking utensils even. We had nothing save the clothes we wore. God help me. I tremble again to think of that. Some helped us. Others turned us away. As help was not forthcoming in the village I resolved in an evil hour to go to the cities. There the Government fed us unfortunates it seems. Gruel was free. We went. On our way we overtook more unfortunates. I saw horrors unspeakable. The mother forsook her child. The strong took from the weak. The helpless were insulted and cheated. The father fed himself and never thought of his wife and child. The cattle were lean and starved. Cows were being eaten. The garbage bins were fought over. We fought with the dogs and birds of the air, for the remains of some rotting vegetable. Every house was barricaded against the poor. We had worked to support these ungrateful people. My darling was at last too tired to walk. He just lay in my arms breathing feebly. Food must come. I stole. I do not feel sorry for it. I would have murdered if it ensured my child a good feed. I do not repent. People become base by degrees, but my virtue dropped bodily as a mantle. There was nothing too great, nothing below me that I did not do; that I would not do now. Enough, from little wickedness, I passed with the stride of a giant into more than the enormities of an *Elah - Gabalus.*† This cloud dense, dismal and limitless, does it not hang between me and my hopes of heaven and salvation? I would sell my soul over and over again to the devil, cast myself into Hell's flames and tortures for ever, Yea for ever and all eternity to succour my darling. I now understood my second born son. Now was I indeed wretched beyond the wretchedness of mere humanity. Neither by day nor night did I know the blessing of rest. The feeble remnants of Good within me succumbed. Evil thoughts, the darkest and most evil of thoughts became my sole intimates. I dragged myself to the food distribution centres where not enough food to keep body and soul together was being distributed gave up and stinted myself that my child might be satisfied. I stole from the dying, the weak and the helpless, strong in my love for my child. I tried to subsist on grass and tender leaves. I grew ill. The thought of what

† A garden where wickedness and evil things flourished (mythology.)

my darling would do if I died kept me alive. This withered frame has passed through the shadow of the valley of Death.

I thought of returning to my village. I laid in a stock of eatables by plundering right and lett. Only for one deed do I feel any compunction. I met a dying woman with food. As I snatched the food from her she cried, 'Not that, Take my life but leave that. It is for my son. He is weak and ill. He will die without this. You are a woman. Feel for another mother. Leave it!" but I was beyond the pale of all human feeling. With a savage laugh I bounded away with the prize. God for give me for that.

We left for our village. We met others coming to the city nursing the vain hope of succour in the city. Others like us, disillusioned were dragging themselves back to the villages, Gaunt human beings lay on the road, side by the side of corpses, beseeching for help without hopes of gaining it. Vultures and jackals fattened and throve. Even the dogs had disappeared. They have been eaten, no doubt. Nothing could shock me now. I would eat vultures and jackals to live.

Don't go traveller. Let me unburden myself lest I die unconfessed. You ask about my son? God bless you, Sir, for a kind heart. Alas! hear what his fate was. Ah, my son! We came to our hut. Signs of revelry and riotous living, strains of ribaldry fit for happier times than these floated from behind the closed doors of the zamindar's mansion. Satan himself could scarcely have improved upon it. I hammered at the door with a bone. Skeletons lay bleached by the Sun. The door was cruelly shut. No voice answered. Were we the only living in that village of sorrow? 'Hush', a voice cautioned, strong hands dragged me back. I was unable to cry out. What was my surprise to see my second son strong and living. "Wretch that you are! You left your aged mother, and young brother to the tender mercies of the famine. We starved while you have fed and are like a fattened pig. Have you no mercy?" "Mother, mother, silence I say. I will give you food. Come, come with me! I paused, astounded. Then I dragged my youngest along with me. We went into a cave near by. There, there were many more like my second son, all armed and stalwart with the grim light of hate and rebellion lighting their eyes. The atmosphere was one of smothered rage. Even the tiniest spark would have lighted the fusillade. The air was tense.

It was the first good feed we had. Suddenly a shot rang out. It was so sharp among the muffled noises that it stung my ear like a whip lash. Some one stood up and said "Brothers! It is time. We build homes in which they live. We till the land which yields their food. They feed on us. They suck our blood like vampires. They stick like leches to us depriving us of food, shelter, and clothing. Arm. Be ready. The time

has come, Jai! The shout was echoed and re-echoed as the surrounding caves took up the cry. I shrank. A scene of indescribable pandemonium broke out. 'Kill', 'Plunder' 'Rob' were the cries. Heavy sledge hammers continued to din against the walls of the landlord's mansion without intermission and the noise which echoed from the lofty buildings alarmed the entire populace. They eagerly relieved each other at the labour of assailing the door. At length a voice was heard to cry out 'Try, Try it with fire!' Will that spectacle never fade from my memory? A huge red glaring bonfire speedily arose close to the door sending up a huge column of smoke and flame against its antique turrets and grated windows and alas! illuminated the ferocious inhuman demonaic wild gestures of the rioters as well as the pale faces of the still living village folk. The mob fed the fire with all available, possible things. Everything combustible was burnt. The door kindled into flame. A huge shout went up. A cry at first muffled and broken like the sobbing of a child, quickly swelled into one long, loud and continuous medley of screams and shrieks utterly anamolous and inhuman, a howl, a wierd wailing cry half of horror and half of triumph such as may arise from hell conjointly from the throats of the damned in their agony and of the demons that exalt in their domination.

Swooning I staggered back. The fire was suffered to decay but long before it could be extinguished the rioters rushed on in their impatience, over the yet smouldering remains. Thick showers of sparks rose in the air as man after man they leaped across the flaming barrier. The lurid light filled the entrances. The hurray of the rioters was answered by a shout wild and desperate as their own, the cry of the doomed wretched souls inside. It was as if Hell was let loose in all its fury to lash up all the wickedness. Death stalked supreme and unchecked. Mercy was neither shown nor quarter given. Men, women and children fell alike under the avenging swords. The carnage was sickening a confused tide of fighters, fliers and pursuers rolled onwards. With wild cries the hunted, mixed in the mob, tried to run up the lanes to escape from the avenging sword. The tumult was now transferred from the inside to the outside. The Zamindar's third son shouted out 'You are neither judges nor jury. You cannot have by the laws of God or man power to take away the lives of human beings however deserving they may be of death. It is murder to execute your will on others. Show mercy to these unhappy men. Do not dip your hands in our blood or rush into the very crimes you are desirous of avenging."

"Blood must have blood. We have sworn to execute justice. Prepare for death," was the reply.

A concerted rush was made at the intrepid youth. A gleam of something bright, a smothered cry of exultation and his head rolled away

as the youth fell without a groan at the foot of his own mother entreating for mercy. A loud shout proclaimed the stern delight with which the agents of this murder regarded its perpetration.

I cast a terrified glance. By the red dusky light of the still glowing members I saw the figures wavering and struggling. The sight was one of a nature to double my horror. It added wings to my flight. But alas! Where was my son, my darling? He was ever the darling of my heart! "Punish me, not him. He is innocent". I shrieked as I made my way madly, rushing wildly through streets searching for my son, my son, my son! Answer me where are thou? Oh what will my heart's delight do without me! He will be killed. Shalimar, answer answer! Hark was it my darling's voice. I must rush. I ran but others were faster. "Kill all the poisonous brood! The rich shall die!" A blow, a cry are all I see and hear. What more! Oh God I can even now see my Shalimar dying, a surprised look in his eyes. Is this justice, traveller? My innocent boy scarce 10 years killed in cold blood. More crimes were done in one and in the name of the new faith than in all the past. What have I to live for? I could not weep. It was as if something had suddenly chilled me, frozen me into ice. I guarded my child through the dreary night with the cry of jackals and wolves in my ears. Day dawned. The sun shone on a scene of indescribable horror. The entire village lay in ruins. How can we plough the ground watered by blood? I am indeed wretched. God has not seen it fit for me to die. How much longer must I live. My story I called it, It is an issue of folly and misery. My second son, said you! Well! He never lived to see the dawn—another millstone to sink me into the pit of perdition! Oh, traveller must you go? Won't you hear the rest? The world must go on. Cars come and go. What, money? No! No! why do I need money? We do not cultivate anything now. Well, are you going? Day after day I stand here waiting. Are you really going, then go. You do not want to know the end. Men come and go but I remain here. Well go traveller and God be with you.

If a man take no thought about what is distant, he will find sorrow near at hand.

—*Confucius.*

The Atom Bomb

BY

P. S. SANKARAN, B.Sc. (Hons.)

[The burning topic of the day. The principle is explained in simple language].

—*Editors.*

The word atom bomb has caught the imagination of millions of human lives on the face of earth. It is appearing in headlines in all leading newspapers of the world. It has assumed importance of such proportions that it forms advantage ground for international political bargains. Just as a cigar in the mouth is considered by the modern youth as a sign of smartness so also modern nations consider that to have atom bomb in the national armamentarium is a sure index of international prowess and unassailable dominance. Every leading government in the world is spending staggering amounts of money, manpower and material for probing the secrets of pure and applied atomic science finding out its effect on water, land, lifeless materials like ships etc., animals and even human life and civilisation. One of my classmates who is staying in Southern America for advanced studies in aeronautieal and aero engineering, after visiting the neighbouring regions of the atomic city in Southern America wrote to me about his interesting experiences. The American Government which has spent crores and crores of dollars over its construction, keeps the whole area as a state secret and the workers there are strictly warned against revealing anything. Dr. Eisenburg, a 45 year old German nobel prize winner revealed the scramble for atomic secrets among the leading nations when he said that there is a standing offer from Russian government of 300 pounds a month to the most eminent German atomic physicist to engage in research of atomic energy on behalf of U.S.S.R. Govt. When the United Nations formed an Atomic commission to investigate into the matter of international control of atomic secrets, the British war time leader Winston Churchill said "The atom bomb, instead of being a sombre guarantee of peace and freedom, would have become an irresistible method of human enslavement, if atomic secrets are brought under international control." Such is the current in the conduct of world politics, which is set into running by this amazingly powerful instrument of destruction. Gregarious professional work with an elite girl of one's choice may amorously bias an individual's mind and body that it may create a conflict between one's duty and right leading to a crisis of the spirit. Similarly too much hugging of atomic secrets by the nations of the world has created a crisis of the times which looks like heading towards a disaster.

What is an atomic bomb? How does it work? can the atomic bomb be put to constructive use? From time immemorial, man has. Speculated on the structure of matter and the ultimate use to which he can put the same.

In Europe, the chemists were the protagonists of the atomic theory; but it was of limited use in the actual investigation of the structure of matter until at last physics took up the matter in hand and gave a final synthesis of the atomic theory. By about 1920, owing to the fundamental researches of planck, Thompson, Niels Bohr and Einstein (a German Jew who was turned out of Germany by the Hitler Govt.), it was made clear that far from being a hard spherelet, an atom was a hollow structure and microscopic dynamic system. An atom has a central Nucleus which has heavy positive charge and surrounding this nucleus there are many light negative electric charges as would make the atom electrically neutral. The difference between one element and another is simply due to the number of unit positive charges in the Nucleus. Thus lead (Pb) and Bismuth (Bi) have equal mass numbers 209; but lead has 82 units of positive charge on the nucleus and Bismuth has 83 units of positive charges on the Nucleus. This one positive charge makes all the difference between Lead and Bismuth.

In order, therefore to break up or change this miniature solar system of an atomic configuration, what we want are projectiles as small as electrons and protons. This is natural enough, as we would require a sling and stone to disturb the configuration of mangoes in a mango tree. Fortunately these stones were discovered to be at hand and supplied by nature herself too in what are called the radio active elements. Madame Marie curic found that certain specimens of Pitchblende emitted particles which made zinc sulphide screens placed in front to fluoresee. Finally she separated Radium chloride from the ore-a ton of ore yielding only a few decigrammes of radium. Later on it was discovered that Radium gives the three powerful radiations called the x particles, the p rays and the r rays. The x particles possess very interesting properties. A diamond exhibits a blue fluorescence when brought near a small quantity of radium bromide, screens of zinc sulphide or Barium Platino cydnide when held before the x rays fluoresee by the x rays. The x Particles consist of Positively charged particles. They have a mass equal to 4 (taking the mass of oxygen as 16) and to carry a charge +2e. This was identical with the nuclei of helium atoms.

The stage was therefore set for the disruption of atomic Nucleus, and Lord Rutherford of Nelson actually succeeded in his attempt. One fine morning in 1917, the Eavendish Laboratory at Cambridge witnessed the disintegration of Nitrogen atoms and the era of Nuclear physics began.

In an evacuated container, nitrogen was introduced at low pressure. A small speck of radium present in the container shot off the atomic bullets, the x particles, Some of the nitrogen nuclei received direct hits and were changed into oxygen. This reaction is represented by the following equation.

$N^{14} + x^4 \rightarrow O^{17} +$ Pro't and the corresponding energy equation should be.

$$N^{14} + x^4 + Ex = O^{17} + Prot' + E \text{ where}$$

Ex = initial Kinetic energy of the x Particle

E = energy freed in the reaction appearing, presumably, as Kinetic energy of the emitted proton and the recoiling O^{17} Nucleus.

Chadwick in 1932, found that when the element Beryllium (a soft metal) was bombarded by x particle a new powerful stream of particles began to issue out of the disintegration chamber. Further experiments showed that the new particle was uncharged and that its mass was almost equal to that of Proton. And it was christened, 'the newtron'. A proton was shown to consist of a newtron and a positron (unit Positive charge). The neutron has a mass number equal to 1 and its charge should be zero. The equation can be written as

$$Be^9 + x^4 \rightarrow c^{12} + n^1 \qquad \text{where}$$

n represents the neutron.

Neutrons are the best projectiles for use in atomic disintegration, for the atomic peripheri is a field of electric force due to the existence of orbital electrons. A charged projectile will therefore experience considerable difficulty in overcoming the repulsive electric force exerted by the moving electrons. This potential barrier is not unlike the gate watchmen of a high class hotel warding off tramps and other undesirables. On the other hand, neutrons being uncharged, are easily able to penetrate into the very heart of the nucleus; they gain as ready an admission as any ermine-robed Duchess!

It was also found that the entry of a neutron into an atomic nucleus makes the atom highly unstable and therefore radio active. The proton and neutrons in the compact nucleus are held together by a powerful binding force just as connubial love and identity of interests keep the married couple irresistibly attracted to each other; and the instant the nucleus is made unstable, all this force will be released, the nucleus becomes a tornado of chaos, splits into small or bits unleashing treamendous amount of energy by way of intense heat and explosion.

This also can be compared to a domestic heckling among a smooth sailing married couple. The moment any extraneous element comes in the way of happy living of the couple, all peace is lost, there is disruption with production of intense amount of bitterness and misunderstanding. This then is the secret of atomic explosion.

Recently attempts have been made towards finding nuclear processes which would result in chain production of neutrous and thus chain destruction of matter with resultant production of energy. A few years back (1938-1939), such nuclear processes were found which were accompanied by a terrific development of energy. The honour of this great discovery goes to the briiliant German Scientist, Hahn who, we hear, has been awarded the Nobel prize of 1944 for chemistry. Hahn's experiments are fundamental to the working of atomic bomb. He bombarded uranium with neutrons and found strontium in the experimental chamber. It was then found that uranium had split into two new elements, the equation being

$$92u + on \longrightarrow 385r + 54 \times e.$$

This process of splitting of uranium atom is called uranium 'fission'. Theoretical considerations on the cohesive energy of nuclei lead us to expect that uranium fission is accompanied by on enormous developement of energy. This energy has been measured to be 200 million electron volts by the Austrian Scientist Frisch. This is the highest production of energy that has even been seen in one single nuclear process. Furthermore, it, was soon shown that in uranium fission, neutrons are also set free so that the conditions for a continuous breaking up are assured.

If atomic secret is so simple why then all the countries in the world begin producing atom bombs? To answer this question one should have an elementary understanding about the terms isotopes. There are two kinds of uranium atoms, each having the same number of positive charges (*i. e.*) 92+e on its nucleus, but each atom weighing differently. Their mass weights are 235, 238. These two atoms are called isotopes of uranium; they are alike in chemical and physical properties excepting their density etc. which depend on atomic mass. The isotope U 235 gives better results in atomic fission than the heavier U 238. Hence the first requisite for the atomic bomb is pure uranium which is very difficult to extract and what is worse, the rarer isotope U 235 must be separated from its heavy neighbour U 238, for U 235 has shown itself to be by far the most active in uranium fission. These technical difficulties of isolation of the particular isotope present a huge barrier against any attempt at producing atomic bombs in large quantities. You can understand this when General Biddel Smith former U. S. ambassador in Russia says that Russia knows atomic secrets but it cannot produce atomic bombs in sufficiently large scale to supply a modern war front.

The physicist surmounted all these difficulties in 1945, and the atomic bomb was born. Here I shall attempt humbly to describe the scheme of construction of an atomic bomb. Roughly an atom bomb consists of a heavy sphere or cylinder of uranium with a hollow in the centre, in which is placed a speck of radium and a metal beryllium which is protected from the radium by means of a lead shutter. The remaining portions of the bomb including the detonating fuse are similar to those of any other bomb. When the bomb is released, it falls nose down and is detonated by the automatic fuse; the lead shutter flies open, the powerful stream of x particles falls into the beryllium nuclei and a steady stream of neutrons is produced accompanied by the release of a terrific amount of nuclear energy. A blinding flash, a detonation that blasts the tynpanum of a man situated 10 miles from the place, and a sharp localised earth tremor take place as the neutron stream begins to eat into the uranium and break it up. The energy of fission of the uranium manifests itself as a heat wave which is so powerful that it converts all the sand furlongs round it into glass. The explosion itself is so terrific that the column of smoke and dust rises up to a height of 20,000 ft. At the instant of explosion, a hemispherical luminiscence is seen, ten times as bright and blinding as the sun. The heat wave produces enormous pressure differences, which result in air movements more ferocious and destructive than the deadliest typhoon. The fission is also accompanied by the release of neutrons which render almost all atoms in the neighbourhood radio active.

Coming to the biological effects, it has been found that Human casualties are found to possess strange wounds on their bodies due to radio active emanation. During the Bikini atoll atomic explosion experiments, it was found that in animals which were exposed to these radiations, necrocis of liver, optic atrophy, nerve palsies, dermal and epidermal corrosion and even complete disappearance of cancer masses have been discovered. What a great blessing to humanity it would be when this powerful atomic energy is used in the amelioration of humanity from the pests of cancer grouths!

Can atom explosion be put to utilitarian purposes? This question can be expectantly replied in the affirmative; for scientists are on their work, to find out the ways and means of channeling this atomic energy for human happiness. Einstein has shown that matter and energy are mutually convertible and we have evidence to show that this is actually the case; for the physicists hold that the origin of cosmic radiation is due to the annihilation of attenuated matter in the interstellar space. Science in the laboratory is not anywhere near this stage of development. According to Einstein's theory of relativity, it can be mathematically worked out on considerations of theoretical playsics that $E = me^2$ (e is the velocity of light). A mass 'n' Possesses an energy E equal to me^2.

Thus if we are actually able to convert one pound of coal into energy every second, the actual power developed would be something like 1750 million horse power! It has been calculated that atomic disintegration of 1 oz. of water can drive the stately oceanliner Queen Elizabeth from Liverpool to New York.

Hence the discovery of the atomic bomb as a first step is of momentous importance to human life in this world; atomic disintegration hints at the revelation of the seeret of life itself; and therefore the scientist is more than ever face to face with his duties to humanity.

With the advancement of science the balance of human mind has not advanced. The result is that the poise of the world is disturbed putting it in a bad way. So it is the duty of the Scientists to see that along with advancement of science this balance or poise of mind also advances. The conflict of the spirit which has been generated due to this disturbance of the balance affects all and as scientists it becomes our duty to ponder over it and solve it and bring back the lost balance.

The failure of humanity in the West to preserve the worth of civilization and dignity of man which they had taken centuries to build up, weighs like a nightmare on my mind. It seems clear to me that this failure is due to men's repudiation of moral values in the guidance of their national affairs and to their belief, that everything is determined by the mere physical chain of events. The first experiment in this diabolical faith was launched in Manchukuo. Those who built their power on moral cynicism are themselves proving its victims. The nemesis is daily proving more ruthless.....

—*Last Message of the Sage of Santiniketan to the Tagore Society, London.*

Osler

Man of Medicine and Literature.

Not amid the dead should he be laid asleep—
Who wageth still with death triumphant strife
Who sowed the good that Countries shall reap
And took its terror from the healers knife
Defender of the living, he shall keep
His slumber in the arsenal of life.

One day in July 1904 a party was arranged, the grandest party ever known at Oxford, attended by the most well known luminaries of the time—every one eager to hear him in whose honour they have come here who is already acclaimed as the Great Physician of the Two Continents—Old and New, Europe and America. Tall, Strong, radiant figure stands before the audience, slowly and confidently begins to talk to them in the most amiable tone full of rhyme and rhythm—'was he talking poetry? was he talking literature? sweet lullaby indeed' whispered the audience'—declares in his first introduction 'It was, sentiment and the ideal that ruled the world'. Every one moves back home talking to each other in a tone full of satisfaction—"In him the literary and historical tradition of Oxford is united with his zeal and adventure of the new world". This was the Personality of William Osler carrying love of humainty with love of craft wherever he went, pervading the atmosphere around him with his immense knowledge both of the old and of the new. It is indeed with pleasure we wish to know of this personality—who had become in his life time the Orator of Medicine and the encourager of literary medicine in the old world and the new, the author of the wellknown text book 'the Principles and Practice of Medicine' and one who could claim at the 70th birth day boo[illegible] & articles which numbered 730.

Feather Ston[illegible] Lake Osler of Falmouth Family a missionary Rector of Ancastor and Dundas in Ontario had three sons from Ellen Free Picton of London. Third son, William was born at Bond Head, Ontario July 12th 1849. Even when young as a student of Weston School near Toronto he had exhibited an unique love for natural science and a taste for literature. He studied medicine in Trinity College School of Medicine and McGill University at Montneal. Finishing his studies with a degree in 1872 proceeded for Edinburgh, London, Berlin and Vienna to perfect his knowledge. In London he studied Clinical Medicine under Sir W. Jenner. In Berlin he met Virchow and Traube, learnt the systematic medical clinics with laboratory and returned home in 1874. He was appointed professor of the Institutes of Medicine at Montneal.

Young and untried, as he was, he must have felt a thrill and joy at approaching students in a lecture room for the first time. It is better to put it in his own words 'My first appearance before the class filled me with a tremendous uneasiness and an overwhelming sense of embarassment. I had never lectured before. With a nice consideration my colleagues did not add to my distress by their presence and once inside the lecture room the friendly greetings of the boys calmed my fluttering heart and as most often happens, the ordeal was most severe in anticipation'. This is what he had to his lot. I think the boys are not always friendly. But to a master in his craft—what so ever may be the boisterousness of the audience—every thing is friendly.

He is not satisfied with his knowledge. He wants to acquire more. He wants to know everything in the world. He wants to excel every one. So after 4 years, he is again at London working and learning under the great masters Murchison, Gowers and Gee. In 1884 he goes to Leipzig and begins working at pathology with weigert. While working here, as a bolt from the blue, he receives an invitation from Philadelphia to the chair of Clinical Medicine in University of Pennysylvania. It is very hard to believe. But he had become already familiar probably by his writings or most probably by his association.

He even thought that his friends have played a prank on him. He is now rich in the goods—which neither rust nor moth could corrupt—friendship, good fellowship, widened experience and fuller knowledge. The fame spread wide and in 1889 he has been asked to work as Professor of Medicine in Johns Hopkins University and Physician to the Johns Hopkins hospital. While bidding farewell to the University of Pennsylvania be speaks 'Nothing can blot out the memory of the happy days—rich in the priceless blessing of friends—I have spent in this city'. Little did he know that his friendship was more priceless to others than their's to him.

In 1892 at Johns Hopkins he wrote his famous book on the principles and practice of medicine. He wrote that a professor has three duties, to see that the patients are well treated, to investigate disease and to teach student's and nurses. He used to say that patients are not to be regarded as just so much material but as our brethern deserving under all circumstances every possible consideration and kindness. He will even say that every patient presents problems for research. In John Hopkins be established new system of teaching, a harmonious blending of two methods England and German *i.e.* Teaching in the wards and teaching with perfect diagnostic help of clinical laboratory—together with the rigid organisation of Edinburgh.

Indeed he introduced Bed Side Teaching and rightly claimed that his epitaph should be 'He introduced routine bedside teaching into the

United states". He will say that a student should follow a disease from the outpatient to the wards, to the laboratories and not the least important to the autopsy room.

The last lap, the fourteen years 1905—1919 at Oxford, of Osler's life added glory and lustre to his world wide repute. He became friend of every Medical School in the Kingdom, and encouraged every Medical Society that cultivated fellowship or was in search of truth. He got honours of D.Sc. from 5 Universities, LL.D. from five other Universities, F.R.C.P. in 1883, F.R.S. in 1898 and was made baron at the coronation of King George V.

He married Grace in 1892, had a son from her—who met his death in France in 1917, while defending his country. This was the most sorrowful aspect of his life. It caused a blow from which he never recovered.

He possessed a splendid medical library, read widely, was almost a fierce book lover and had a retentive memory. Besides this he had a historic spirit which made him a successful combination of physician and man of letters. He even advised medical students to read for half an hour daily outside their medical work and even suggested a bedside library of ten general books. Thus his setting was historical, and he lived and he worked as if he lived—in a formative stage between a great part and a greater future, a witness of eternal continuity and progression.

Being a believer in active work, he had an immense range of patients, many men, many books which left a remarkable effect on a responsive and sensitive personality. He assimilated his extraordinary experience and gathered it up, remembered it and used it.

He loved great things, and thought little of himself desiring neither fame nor influence, he won the devotion of men and was a power in their lives and seeking no desciples be taught to many the greatness of the world and of man's mind. He had a kind and greatful heart and was called Mr. Great heart. He will always uphold truth and nothing but truth and was called Mr. Valiant for Truth.

What made him to live so hard and work so hard?

Is it for honours? Is it in quest for Truth! or is it for good of mankind?

I am sure in the sacred grove for medical heroes—the great interpreters human life you will find Osler.

—*N. Krishnamurthi, M.A.*

BEAUTY

Beauty; beauty clamours every one
But what it is, is known to none.
It is a flower that charm human mind,
And casts its spell over somber hearts.
Ttou has bestowed real beauty to some,
Beauty, purty and kindness you gave to none.
No rose exists without a thorn,
With a dark patch lovely moon was born.
Beauty in nature, beauty in women,
Both harmonise to dominate man.
It either turns him mad or morbid,
Or soothes his mind and brings him joy.
Oh' man search beauty in face.
See the heart is bright as rays.
My heart breaks as thy rosy colour fades away
On a tender petal burning sun has its sway.
God destroys all things great or small.
From hands of nature beauty has its fall.
Beauty passes like the watery waves-
On sea shore often they find their graves.
Leave no trace of thir's behind.
Their memory only stick to our mind.
Oh beauty why thou geeth so soon.
Like a rose in its bloom.
I prey thee, stay for some time more.
But alas fate stands at thy door.

Life in Death

A Report from Jalianwalla Bagh.

BY

K. NARASIMHA RAO (*4th year, M.B.B.S.*)

(Mr. Narasimha Rao, creates a fictitious Jallianwalla Bagh very near the sea and recalls to his memory the most heinous crime perpetrated by the British Raj—Amritsar Tragedy).

—*Editors.*

People....People....People....everywhere....

Shouting, talking, cursing people....

Oh God! He is dreaming again. No, it is a night-mare. But it is not now to him. He knew it by-heart. HE knew perfectly the scene.... Why the thousands have collected....Why there is that tension in wind.... What is going to happen does not bother him now. He is not afraid of it. But it always leaves him a bit nervous....

Silence; death like; the same old silence came over. Yes! there will be somebody....No! The sea is shouting something....He wanted to see them again....the hounds who are going to destroy the whole ceremony.... those dirty dogs who will take him away....those sons of....

There they are, looking as if the sons of God are mere dirt. One, two three four....Dogs they have come here in hundreds, with guns too, as if the people assembled there, are going to resort to violence!

He heard the shouting "those who want to live clear off the beach in five minutes, or else we are going to shoot the hell out of you. Clear off."

It is impossible....What a foolish idea....How can thousands leave this place through that narrow lane! He laughed at the very foolishness of the crazy fellow. Everybody started laughing. But....But he only knew what is going to happen....And it didn't take time to come over....

Tutt....Tutt....Tuttt....It went off....Rather it came over....

The dogs were let off....He can hear the screaming....He can see them running for their dear lives....

TITT....TUTT....TITT....TUTTT....The guns were going....People were running....crying....screaming....shouting....

What a dream? How horrible it will be if it were to happen really? He is going to be pushed now... there it is....that mass of human beings....'HAuff!' he fall is painful....

The guns....the people, the shouting....it is going....

The hubub is going down in volume....It felt as if there has been a storm ...Once he was caught in a storm....But it was an adventure in itself....At last there had been some fun....He was soaked to his skin....And he got nice bangings too....It was in his boyhood....Those were the days to live....

What happened? There seems to be death around him....No it is the silence....Slowly he opened his eyes and scanned around—A sea of sand meeting the sea, here, and there intimidated by some long black forms.... God they are men! Dead....Yes! they were shot like dogs! Theatre! That red mars! That is blood, surly....

What is that? Somebody is moving....That is the dog of law....If only he could lay hands on that son of a....What is he doing there? He is searching the bodies....He is pocketing something....Robbery! Loot! And what is the other hound doing there? He is kissing a half dead body of a woman....God! how can he bear the sight?

Everything became dark as he closed his eyes....But he could hear the woman's kicking feet....He heard the half dead moan stopped short by a soft hissing....that must be the end!

He attended the tick tick of his watch....It was a present from his father....A good one too, served him for ten years....The ears of his eldest son are a bit funny....just like his mother's....Poor girl....She doesn't know that he is lying here almost dead....Death....It must be something which is horrible, just like the time he has just now passed....

"Take the live ones to the station" shouted the dog. How he wants to be dead now!

KRRRRK....KRRR....KRRRK....KRRR....The crunching of sand. He used to like the sound....lay still....But he knew that it is of no use....He knew he will be taken to the station.

"There that fellow."

It is no use. He is spotted. He got up....There were six of them taken alive, Living among their dead brothers. The are dead but they

are free....hundreds of them. They came in thousands. Left them six to be taken as prisoners.

"March, you sons of good-for-nothing mothers. You are all patriots I think! Can't you sit properly, dogs? What do you want? Your skins must be roasted on a whip."

They marched. The devils hundreds of them and the prisoners six of them alive. They marched past the dead.

They marched through the streets, dark and dead. But they know that anxious and sympathetic eyes are watching them marching to their fate.

He never believed in fate or any such nonsense. Yet people insisted on calling him a philosopher. If only—he could believe in that. He would not have minded this procedure which is such an awful bore for him. He is the happy-go-lucky type. That is what made him come her But he has been doing this sort of work for the past so many years. His wife does not know that he is 'one of the workers'. She let alone freedom—by this sort of....does not believe that any thing could be attained She will be now waiting for him to come for the dinner....Nonsense! She is sleeping beside him now....Is this not a dream? But he never thought of what he is doing....Some say that it is a strain of genius. Funny; he thought being a genius, to be taken as prisoners....But most of the geni were like that....They were hanged or shot, because people never believed is them, or what they said....

Atlast the station....The store house of law and order. The Place where the killings of the day were planned....In whose records A paper will be kept scrawled in black, about the red blood which was shed that evening.

"Fall on your knees and crawl forward" shouted someone.

He looked at his neighbour. Lifeless eyes, with agony bored into its depths looked at him.

"Be quick at it' you sons of...."

He knows he will go there. He started to crawl....

Brrrr....Brrrr....Brrrr....Brrrr....

The gravel is holding its right to cut his knees! The mocking laughter of the devils is burning his heart. But it is all a dream....only a dream....Dreams....people say, will come true....He never believed in them.....

"How do we like that patriots" the officer shouted.

Looks....from and to the half dead eyes....Then he saw the officer.... the devil himself in person....Black bundle of fat....

"It is the crawling order, badmash."

He couldn't bear it. Even if it is a dream it must be a limit....

He knew he will answar that fellow.

"Yee, traitor" he jeered, "you think you have done your duty. Do you? Madarchoth! Eating and drinking the blood of your own brothers. You! I spit in your face. Thu! I spit in the milk of your mother. Thu! 'You....

tutt....tut....tuuut.....tut....That is gun....He is used to it....Now he will be dragged out and thrown over the wall. Then it will all end when he will see himself thrown out of his bed.....

But....But something has gone wrong. He can't feel any thing. He is not able to hear or see things. Surely this must be a dream! But....He is not able to feel the heavy fall nor hear the thud....He is feeling lighter and free. He is like....like air....he is the air itself....There must have been something which he cannot comprehend....Oh! God. he is dead....And this is his life in death.

True Romance

BY

K. G. SREEDHARAN NAIR *(IV year.)*

"It seems to me that I have gazed at the beauty of thy face from my very birth, yet my eyes are hungry still; it seems to me that I have kept thee pressed close to my heart for millions of years, yet I am not satisfied." If this is the kind of romance you except to read here, you will be disappointed.

Goethe the master Poet of Europe on his death bed said "I want more light". If I were to die to-day and someone were to ask me what my last wish is, I shall certainly reply "I want more Romance". Born in this great world full of infinite mystery, I have found in it a great many things which lend a touch of Romance to all aspects of life. Many people, there are, in the world who do not find much or expect much from this life, which to me is an eternal unfolding of Romance. There are some others who believe that life is not so dull and boring always but that there are in it sometimes streaks of pleasure which are few and for in between, but still I shall persist in believing that our existence is an unbroken continuity of Romance.

On a cold winter morning, when I shave, the touch of the warm water on my face lends me a bit of a Romance.

After a good dinner when I relax myself on the grass with a cigrette in my mouth watching the starlit sky with its fleecy clouds and the waning moon, and the music floating to you from a distance; with every puff I take in, I feel a great joy coming through my veins. That is a Romance.

In the rainy season when it rains heavily during night, almost every one of us will feel very much elated and happy. It is really a thrill to watch and hear the rain pouring down in torrents flooding the earth, the flashes of lightning, the gale and the peel of thunder. Supposing you have done a good day's work you will feel naturally very tired and the desire to sleep will overcome you. Then you see your bed beautifully made up, white, neat, and inviting. Immediately you put out the lamp and jump in to it. A moment afterwards you are lying smugly on your bed with a thick blanket over you and you gently to fall to "that sleep that knits up the ravelled sleeve of care." And that is a Romance.

Sometimes I feel very lazy; I love to be lazy. I will lounge in an easy chair, a master in the gentle art of doing nothing. My mind will be a slate and each passing hour a wet sponge that will wipe out the scribblings written on it by the world of sense. Time because it is fleeting, Time because it is beyond recall, is said to be the most precious of all human goods and to squander it is the most delicate form of dissipation which a man can indulge in. Cleopatra is said to have dissolved in wine a precious pearl, but she gave it to Antony to drink, when I waste the brief golden hours I take the glass in which the gem is melted and dash its contents to the ground. I will sit and sit there for long hours with a vacant mind, staring in to the emptiness around and beyond me and brood. That also is a Romance.

Supposing you learn that you have passed a difficult examination with a good deal of luck you will be transported in to a realm of very great happiness and you will be in a mood to celebrate the event. In the intoxication of that feeling you will be ready to spend anything without thinking of the consequences. You collect some of your best friends and go to a hotel. There you forget yourself, you eat, you drink, glass after glass comes before you, you finish them all, cigrette after cigrette you smoke till the whole place is strewn with stumps; still you go on in that mad desire to enjoy, till you are left battered and ensanguine, and come away with a dizzy head and a fagged out mind without even a penny in your pocket. That too is a Romance.

You might have sat on the seashore watching the ocean rough and roaring, with the overarching sky above, so wide and so peaceful. In the preasance of such beauty and immensity, you will feel so small and puny. Vague and disturbing thoughts might assail you. One moment realising your smallness you feel dispirited, but in the next, some imaginary hope might lure, same gloaming picture of the future untramelled with every day burdens might tempt you. Still you will feel that these are all illusory. With the murmur of the ocean you might also think of the time when you will hear the indistinct murmur of the great ocean beyond the estuary of this life, the sound of waves dashing against the rocks to break up in to foam and spray; those waves that wash the shores of the amber islands of that other life. This too is a Romance.

This Romance whose other name is joy is everywhere; it is in the earths' green carpet of grass, in the gentle rustle of the autumn leaves, in the beauty of Nature that never insults our freedom, in the touch of the living flesh that animates our frame, in the perfect poise of the human figure, noble and upright, in the happiness of a disinterested life, in

learning, in fighting against the innumerable odds of life, in living as a brave man should, unmoved, silent, and uncomplaining. Joy is everwhere, it might not be quite necessary for our existence, it might even be very superfluous but still it is the most predominent incentive of all human endeavour, It exists to make us realise what Arthur Symons once wrote:—

"The wisdom which is wiser than the things known,
The beauty which is fairer than the things seen,
The dreams which are nearer to enernity,
Than the most mortal tumult of the blood....."

The Balloon Bursts . . . !

BY

R. RAMAMURTHI (*II year*)

After a whole hectic evening, *Ramachander* hurried up and took a comfortable seat in the city bus, — a "safe" seat as that where ladies don't usually swell up and demand you to stand up for them by their very looks. Mercury lights had come out one by one in the streets and as he looked at them in sheer joy, they seemed to call him mysteriously to a land of light and colour, dance and dreams. He was sunk so very heavily in his reverie that even the smiling, white-and-blue clad, romantic figure of a lady-conductor had to repeat the request "Ticket, Please" twice or thrice.

Ramachander was a clerk in the well-known firm *Goodoobhai and Goodoobhai Co.* A new manager was appointed the same year as he joined as clerk and the new boss took to liking him very much. And the manager was by himself a nice, sociable, charming personality. He loved company and sport and when the Fourth Cricket Test Match came off on the Chepauk Grounds, Madras, he gave a five-day holiday to his subordinate to witness the Test. He announced it his keen intention to see that better and more cordial relations prevailed among the various strata of workers in his company and there is really nothing like sport which promotes better relations. So he declared that every year an athletic meet will be arranged and that there will be a distribution of prizes.

That evening the first athletic meet had come of and Ramachander was the lukiest guy to come first alongwith his partner in *The Mixed Balloon Race.* Every gentleman was asked to choose a lady-partner. The gentleman will have a balloon with which he will dash through a 100 yards where his partner will be eagerly waiting with a thread. He will blow the balloon and she will tie it up and both with the blown-up balloon will dash back through the same 100 yards to the start. In this very amusing race, Ramachander and his partner, *Ragini*, a typist in the same company and a paragon par excellance had the good fortune to win in the most exciting finish of the day. There was as much fun during the race as while proposing the partnerships and Ramachander and Ragini were the recipients of numerous congratulations and more numerous were the envious eyes that were cast upon them and the silver cups and balloon packets they received that evening.

It was over these events that he had sunk into a reverie from whcih he was rudely awakened by the polite demand of the lady-conductor. The reverie was not all a pleasant one. Now and then his wife *Padmasini* seemed to appear on the scene with her jealous queries and spoil the sweetness of his recollections of the happenings of the evening. But his little boy, *Surendra* would be very happy at the sight of balloons. And there was another difficulty. His wife had a genuine hatred for balloons. She would rather see her only son roll about in tears on the muddy lap of Mother Earth than buy a balloon and give it to him,—not that she was not aware of the poetry that lies hidden beneath the colour and peculiar perfume of the balloons which children all the world over were the first to realize but she could not tolerate the sight or sound of an over-blown balloon being burst over by the sheer overdosage of one's own breath being willfully blown into it. She was an imaginative creature. The bursting of a balloon, she would say, reminded her of the blowing over of favourite ideas, imaginative visions, and fond dreams without which life itself would have lost half its meaning. Woman lives in a world of half expectation and half fulfilment and when a balloon bursts, she argued, the entire edifice of expectation crumbles into dust. Hence her hatred for balloons. But like all children, young Surendra was very fond of balloons and,—of bursting them, albeit unintentionally and Ramachander decided to silence her jealous queries as well as her psychological objection to balloons with the handsome present of the silver cup and then he could give the beautiful packet of assorted balloons to his lovable Surendra.

Ramachander met with half success only. Padma was really very proud of her husband and of the silver cup he had won, but,—the hated packet of balloons stood in the way of her wholesome appreciation. Why should not her husband run alone or run a thread and needle race with the office typist? But she little realized that balloons have gradually replaced threads and needles and that they had begun virtually to cast their shadow on every walk of life. To every festival you go either in town or village, you can bag there hundreds of balloons if only you have the will and the purse for it. Balloons are the very things which announce festivity and good cheer and the bigger you blow them, the happier you are. But Padma somehow did not understand. But her son was already in the street trying to blow there balloons at the same time. He went to bed very late in the night and that too with a fully blown balloon near his pillow.

Ramachander was not getting sleep and he was musing over the events of the day with eyelids closed when he was suddenly shaken up from his bed-by the unfamiliar screaming of his wife combined with the familiar bursting of a balloon. He put on the light hastily to find his wife sitting erect, perspiring profusely, with Surendra on her lap. What

is the matter?" He enquired. "I had a very funny sort of dream, "she explained, "which was interruped in the middle in a shocking manner and hence my screaming. "She went on in a dreamy, half-sleepy tone: "I thought it was the twilight of the evening and our son was standing in the street with a balloon fully blown to a size bigger than himself. Suddenly a powerful gust of wind blew carrying away our son before it with his balloon wich he held tight in his hands. I ran into the streets and shouted out but he replied: 'Don't worry, mummy. I will come back.' And the wind kept on blowing and he kept on floating. Birds which were hurrying to their nests came round and round him in a circle but touched him not. I wanted to call you out and show the rare sight but my mouth was parched and I couldn't shout out. Stars had come out one by one in the heavens and they seemed to beckon our son with an irresistable '*Come, Come.*' The moon was rising in her full majesty from behind the mountain-tops. Surely, I said to myself, my son had been crying all these days for the moon and to-night he won't certainly return without the moon well secured inside his balloon. My heart was swelling with pride and fear when suddenly I heard the sound of a bursting balloon. I closed my eyes tight in sheer agony and I thought our son being hurled from the heights of the heavens for having so daringly attempted to pocket the moon which belongs to the whole universe. I was perspiring heavily when you put on the lights and after all I found our son sleeping soundly near me and I realized much to my chagrin that he had rolled over an actual balloon whose bursting noise had disturbed my dream. Again it is all a balloon-burst which has spoilt matters," she exclaimed and burst forth into peals of laughter which, in the silent night reminded him of the clear ringing of church-bells.

Outside, the full moon was shining in all her glory....

FINIS.

Bacille Calmette Guerin

Recent All India Statistics published in the press states that tuberculosis is taking a heavy toll of lives in this country. A life per minute (About 5 lakhs per year) is sacrificed at the altar of the microscopic demon mycobacterium. If we are to know that five new lives are infected and crippled every minute (*i.e.* about 25 lakhs per year) it is time that we have found new and effective weapons to check the disease—one of the greatest scourges of mankind. It is no good improving a certain section of the population, for no home is safe until everyone is safe. If Shakespears's prince of Denmark says 'To be or not to be is the question now' the minister of health in India should say 'T. B. or not T. B. is the question now'.

Everyone knows that prophylaxis against tuberculosis consists in promoting immunity against the bacteria besides, the time honoured methods of early detection, isolation, institutional treatment, mass radiographic survey to pick up a symptomatic spreaders of the disease, care of contact children, general improvement in economic condition of the people and nutrition and housing of the diseased. International organisation has come to our help with B. C. G. Vaccine. It is but natural for us to know its origin and its efficacy before we begin to use it. This article is mainly meant to clear the doubts and fears raised by both the press and the public of Madras. I have taken the information mainly from the pamphlet issued by Johs. Holm, M.D. chief of the Tuberculosis Division, State Serum Institute, Copenhagen, Denmark.

What is B. C. G. Vaccine? Calmette cultured a strain of bovine tubercle bacilli on bile-potato culture medium 1906. It has undergone 235 passages for 18 years in Paris. During this process. The virulence of the bacilli has steadily decreased and now it has a very low virulence and is called Tamed Tubercle bacilli. By innumerable tests on many kinds of animals Calmette found that the strain was unable to produce disease. All B. C. G. vaccine comes from this strain. At the State Serum Institute in Copenhagen, the strain is kept on a synthetic fluid culture medium (Sauton medium) and transferred regularly from one medium flask to another in such a way that the effect of vaccine will be stable. For the preparation of vaccine, B. C. G. bacilli are grown on the surface of the fiuid medium. A 14 days' old culture is used. The mass of bacilli is first weighed, then emulsified, in a relatively dry state, by means of stainless steel pellets so that the bacilli lie almost individually and not in large clumps. By adding fluid, a suspension is made so that it contains ¼ mg. B. C. G. culture per 1 c.c. Diluted Sauton medium (1 part S medium

to 3 parts of distilled water) is used as diluent. The vaccine is distributed into sterile glass ampoules which are immediately sealed. The vaccine is sent out after a control for sterility this takes two days. The final vaccine thus consists of a suspension of B. C. G. bacilli in a diluted Sauton solution with ¼ mg. B. C. G. *per milli litre*. 1/10 c.c. of this is given for the intra cutaneous vaccination *i.e.* the dose of vaccine used for a vaccination is 1/40 mg. or about 1 million B. C. G. bacilli. Before using, the ampoules must be shaken for the vaccine being a suspension the bacilli will, to some degree, form a sediment.

The B. C. G. vaccine department at King Institute Guindy has the first class laboratory with all the elaborate equipment necessary and a set of guinea a pigs for control tests).

The above vaccine can be used for two weaks B. C. G. vaccine is prepared once a weak. The B. C G. bacilli will remain alive in Sauton medium at temperature 2 to 4. The vaccine should be kept at this temperature. If allowed to freeze the ampoules will crack.

Is B. C. G. vaccine dangerous? The critics of B. C. G. quote an accident which occured at Lubeck in Germany when 73 out of 249 vaccinated new born infants died of tuberculosis. The Lubeck catastrophe was not caused by B. C. G. but by virulent tubercle bacilli which by mistake were mixed into the vaccine. If we are to prohibit the use of B. C. G. for this reason is to prohibit the use of aspirin because some pharmacy had sent out scopalamin instead of aspirin, resulting in deaths due to poisoning. The mistake in Lubeck was made because B. C. G. bacilli were cultured in the same incubator as virulent tubercle bacilli. In all laboratories now producing vaccine, not only are special incubators used' but the rooms where B. C. G. bacilli are handled are used exclusively for this purpose. In King Institute, Guindy no person is allowed to enter the rooms where B. C. G. vaccine is produced before he has had an x-ray of the lungs taken to exclude the possibility of his having tuberculosis.

How should B. C. G. vaccine be given? Professor calmette used to give orally—oral vaccination. Though easy, experience has shown that the effect of vaccination by this method is very questionable even in newborn children. Subcutaneous injection of B. C. G. vaccine has been tried, but has proved to be impracticable and uncomfortable because of the abscesses which practically always follow. Rosenthal's multipuncture method and the scarification method of Bretey have been tried. In 1927 the intracutaneous injection was developed as a practical method in Scandinavian countries. In this dose of vaccine can be measured exactly. Experience has shown that 99% non reactors become reactors to tuberculin and after 4 to 5 years, 90% will still be reactors if this method is adopted.

Hence highest degree of allergy and longest duration of allergy is assured if intracutaneous method is used. This is the method used at present. To be successful a special platiniridium needle No. 20 is used. 1/10 c.c. of vaccine is injected slowly. If successful a wheal will appear in which the follicles of the hair are easily visible. The wheal must have a diameter of about 10 m.m. and last for several minutes. If the vaccine is given on the thigh, the local reaction might be too big and inconvenient. Hence it is always given in the deltoid region. Complications which might follow are :—(1) local reaction might be a little bigger than normal. These do not require special treatment. They will heal themselves. In some cases a dressing may be necessary. (2) In very few cases, the local lymph node in the axilla or subclairular region will enlarge, and even form an abscess. These usually develop 2 or 3 months after the vaccination. A single puncture with aspiration of the abscess will make the abscess heal by itself without bursting. If the vaccinated person comes to the doctor after the abscess has burst, no special treatment need be given—no incision is necessary. The lesions heal by themselves. They should not be treated as ordinary tuberculous abscesses.

Is B. C. G. Vaccine effective and what result can be obtained by vaccination?

Controlled studies have been made among North American Indians, on nurses in Canada, medical students and nurses in Norway, and several groups in Denmark. From these and many other experiments it is evident that the number of cases of and deaths from tuberculosis among non-reactors to tuberculin can be cut down by vaccination to about 1/5th of what it would be without vaccination.

Even if cases of tuberculosis occur among the B. C. G. vaccinated, these usually take a much more benign course than those which occur among the non-vaccinated.

From the experiences in Denmark, Canada, and Norway it is safe to say that the protection against tuberculosis obtained by B. C. G. vaccination is about the same as that acquired by a natural infection.

Is isolation necessary in conjuction with B. C. G. vaccination?

No isolation is necessary. If it is possible to segregate vaccinated persons in tuberculous families, this, of course, should be done. At its meeting in Paris on 15th June 1948 the W. H. O. Sub-Committee on Tuberculin Testing and B. C. G. vaccination recommdended :—

"That for the mass vaccination programme, isolation of vaccinated persons was not necessary and that segregation of open cases even though desirable for other reasons is considered not to be an essential measure for a mass B. C. G, Vaccination programme.

Is malnutrition a contra-indication to B. C. G. vaccination?

From experience gained by tuberculin testings and vaccinations by Danish teams in countries—Poland, Hangary, Yugoslavia and Germany, where post-war conditions have caused malnutrition there is absolutely no reason to fear. The tuberculosis reactions of children, local reactions following vaccination, and the allergy produced by vaccination are just the same in these countries as in Scandinavia.

On the contrary there is every reason for using B. C. G. vaccine in those countries with undernourished populations in order to induce the specific resistance to tuberculosis following vaccination. In no population group is B. C. G vaccination so needed as in groups with low general resistance. For the same reasons, in Denmark, Norway and Sweden all diabetics are vaccinated with B. C. G. for diabetics have an especially low general resistance to tuberculosis.

Hence there is no fear that B. C. G. is yet in experimental stage. In B. C. G. vaccination there is absolutely no harm. And that too the vaccine can be given in the midst of open cases. As such it is really best suited for Indian environment where isolation is almost an impossibility. Malnutrition being an espescial indication for B. C. G. I think that B. C. G. vaccination should be speeded up with unprecedented bounds. This will diminish in a short time the number of infectious cases in the same area and thus lower the annual infection rate.

A Warning:—It must be remembered that all the new cases of tuberculosis does not arise in the non-reactor group and that a number of new cases will arise among vaccinated persons *because B. C. G. vaccination does not give a 100% protection.* B. C. G. vaccination is only one of the weapons for control of tuberculosis—it is not the only one. It is possible to reduce the number of new cases arising in the non-reactor group 1/5 or 1/7 of what it would be, with vaccination. It has been stated several times that it is not dangerous to give B. C. G. vaccine to anybody, even to persons with tuberculosis. However, the vaccine would cause most unpleasant Koch phenomena—a red sore infiltration around the site of vaccination, appearing one or two days after the vaccination looking very much like an infection with such germs as streptococci.

Areas where there is or has recently been an epidemic should not be vaccinated. For epidemics like Measles have the effect of temporarily inverting reactors to tuberculin into non-reactors. This means that the tuberculin test is not reliable in such a group and therefore no vaccination should be carried out.

—*N. Krishnamurthi, M.A.*

Annual Report of the Medical College Association for 1948-'49

President Sir, Members of Staff, Ladies and Gentlemen,

I have great pleasure in presenting to you a review of the activities of the Association for the year 1948-49.

The year began with the election of the rest of the Office-bearers of the Association, the Secretary and the Student-president having been elected towards the end of the previous academic year. Most of the posts went uncontested except that of the Assistant Secretary and the First Year Representative wherein keen competition prevailed. The convention of having a lady student as the Associate Editor of our Magazine was broken, Mr. Krishnan Unni being elected for the post without contest. This year in the choice of Office-bearers the members of the House exhibited such a sense of responsibility that I had the previlege of working in a team wherein every member was quite capable of managing the activities of the Association by himself. If at all we have achieved anything this year it is entirely due to the spirit of co-operation and mutual understanding that existed among the members of the Executive Committee inspite of what others had to say on it. About the middle of the term Mr. Satyadas created a sensation by resigning from the Executive Committee. I take this opportunity of expressing my gratitude for the sincere work that he turned out for the Association. Without him I could not have done much. In the bye-election that followed Mr. Alexander Mathew was chosen as Representative for the Second Year.

Our Activities:—On the 17th of July we had the unique previlege of having such a great person as Acharya Kripalani to inaugurate our activities for the year. In a simple manner he made it clear that with a proper scientific outlook it is possible for us to serve the teeming millions of our India.

We had the First General Body Meeting on 29th July where in Dr. Sivasubramania Mudaliar and Dr. Janardanan were unanimously re-elected as Treasurers of the Magazine and the Association respectively. The then Principal Dr. P. V. Cherian addressed the members stressing the need for co-operation for the welfare of our student community.

On the 6th of August we brought of the biggest function of this College in living memory to bid farewell to the most popular of our Principals, Dr. P. V. Cherian. We clearly demonstrated on that day what position Dr. Cherian occupied in our hearts.

We assembled again on 12th August to unveil the portrait of Dr. Cherian. The function was unique in that for the first time perhaps the Students of the College contributed towards the portrait of their retiring Principal.

Then came the Anniversary of our Independence. True to the instructions from our leaders we celebrated the Day in a simple manner with Flag-hoisting and Prayer.

On 20th of August we welcomed our new Principal and Vice-principal, the worthy successors of the popular predecessors. On that very day they stressed the importance of descipline and regularity of attendence.

August 25th was a great day for us this year. We met the Graduates of the year at the Reception held in their honour. It was a sight for Gods to see. We were fortunate enough to have Dr. Ernest Forrester-Paton to address the Graduates. The arrangements for Tea and the Open-air Entertainments were so wonderful that Those in Heaven shed tears of envy. The success of the function was entirely due to the untiring efforts of the Artists and the Volunteers who spared no pains to see that it was one of the best in recent years. My thanks are due to every one of those Artists, Volunteers and Members of the Sub-committee who were responsible for entertaining so well the Guests of the Evening. In passing, I point out that for the first time the Student-president presided

Then began the darker side of the picture. On too many an occassion - as many as nine times - we had to assemble to express our sorrow at the loss of those near and dear to us. We had condolence meetings for three former members of the Staff, Drs. Achutha Menon, Bhaskera Menon and Thambiah, one famous old student of the College, Dr. Y. Subba Rao, three students of the College, Messrs Sivaraman, Krishnamurthy and Ramachandran and such a great figure in our national life as Mrs. Sarojini Naidu. Then followed the greatest tragedy for us. We suffered the most irreparable loss in the untimely demise of Dr. S. K. Sundaram. He was snatched away from us when we wanted him most. In him was lost not only a gem in our profession but also one of those gifted teachers for generations to come. I am sure all of you will join in the earnest prayer that we be spared this painful duty for many years to come.

Again we were lucky to have Dr. Pattabhi to address us on the 26th of January. The Congress President entirely forgot his present and presented to us his past - glorious as it was - as an old student of this Institution of ours.

We had the good fortune to have the Valedictory Address of the year from such a loving and lovable personality as Dr. Anantanarayana Iyer, who kept us lively for full forty-five minutes with his characteristic gestures and anecdotes.

Among other activities I must express my appreciation of the various picnics and Class socials arranged by the respective representatives. I must also express my gratitude to the Representatives of our College in the Inter-collegiate Debate conducted by the Madras Christian College. I regret that even though we did our best we were beaten by the Christian College.

In the Inter-collegiate Debate for the Dr. Cherian Rolling Sheild, we had competition of a very high order where-in as many as ten Colleges took part. As ill-luck would have it, to our utter dismay, again the Christians superseded us. I am happy that Mr. Surendranath knocked off the cup for the Second-best speaker. My congratulations to him and his team-mate for their splendid performance.

On 17th of February we created history by knocking off the Trophy for the Inter-collegiate Dramatic Competition conducted by the College of Engineering. I am proud to say that our team outclassed every other College in their histrionic talents. My hearty congratulations to our Artists. Well, from now onwards they have a reputation to keep up.

The Magazine:—After a lapse of about an year the Magazine has reappeared, thanks to the efforts of Dr. Sivasubramania Mudaliar, who cleared all debts for us and the two Editors who are working to their utmost capacity to keep up the standard. I venture to say that with a little more of co-operation from members of the House we can improve the standard of our Magazine. I am happy that after the financial crisis that we had last year, we were able to bring out two issues already and we have financial provisions for more this year.

Our Reading Rooms:—There has been considerable improvements in this line this year. We are getting the Hindu, Indian Express, India, Forum, Blitz, Swatantra, Illustrated Weekly and Sankar's weekly regularly for the Reading Rooms. It pains me a bit that there is a tendency for some of the Magazines to disappear from the Common Halls and I hope my successor may not have this unpleasant experience.

Our Finances:—Inspite of the colossal expenditure that we had for the Graduates' Reception and other functions this year, we were able

to leave a balance of about three hundred rupees to our successors. The entire credit for this achievement goes to the Assistant Secretary and the Lady Representative who helped me in building up a huge reserve by way of donations from members of the Staff. I shall be failing in my duty if I forget the liberality of our staff in loosening the strings of their purses for us. My thanks to one and all of them.

Ladies and Gentlemen, I cannot be proud of my achievements. But I am happy of one fact. Something in me may be my conceit tells me that I had the maximum co-operation. I shall not expect anything better from my own brothers and sisters. As for me, perhaps in my future I can look back with pride that once in my life in this College, I held the confidence of thousand and odd youth who is to form the cream of the society of to-morrow. That is enough credit for me. I once again express my sincere thanks to the members of the Executive Committee and every one of you for having co-operated with me in managing the affairs of our Association. I shall be proving the most unworthy of your confidence if I fail to express my sincere thanks to our Principal, Vice-principal the Treasurer of the Association and the other members of the Staff for their advice and unstinted support. Now my only request is that on 11th of March last year I assumed charge as your Secretary with an appeal for co-operation. To day when I relinquish that Office I repeat that very same appeal for co-operation not for me but for my successors. To those who weild some influence in this College I personally appeal to use that influence for furthering the progress of this Organisation.

GLORY UNTO OUR ASSOCIATION AND GOOD LUCK TO ONE AND ALL OF YOU. THANK YOU.

9th March, 1949.

—*C. Gopalan Nair,*
General Secretary.

Annual Report of the Madras Medical College Athletic Club for 1948-1949

CAPTAINS

Cricket	— M. A. Basir.
Hockey	— Md. Haneef Padsha.
Foot-Ball	— P. Viswanathan.
Volley Ball	— Md. Unni.
Basket Ball	— G. Gurupadam.
Tennis	— George Taliath.
Boxing	— C. R. Sundaram.
Athletic	— B. Krupa Rao.
Ladies representative	— Miss N. Lila Menon.

The year under review proved that the standard of our College in the field of Sports and games was on the upgrade. This was mainly due to the untiring interest evinced by our Ex-Principal and President of the Athletic Club, Dr. P. V. Cherian. He took personal interest in almost every game and his dynamic personality and the great keenness he showed for every activity inspired confidence into those that took part in that activity. Hence the termination of office of Dr. P. V. Cherian due to his retirement was a great loss for the Athletic Club. But the good work done by him is now taken by an equally capable President, Lt. Col. Sanghamlal.

Exceptional success was attained by our Football team which won this year's Inter-Collegiate League Tournament, May and Baker Tournament for the third year in succession and the tournament conducted by the Pachaiyappas College for the B. V. Narayanaswamy Naidu's Trophy. The Basket Ball team won the Inter-Collegiate League along with the Loyola College. So also our Hockey XI which shared the Inter-Collegiate honours with the Loyola College. Our Volley Ball team annexed the Shield for the Tournament conducted by the Loyola College in the first term.

As usual a number of our College players were selected to represent the Madras University in various games.

Cricket:—The new addition to our Cricket team was the University Cricketer B. S. Wilson from the Christian College. By dint of his plucky batting, he was able to top our college batting averages. The bowling average goes to Joseph Antony who has now become a Doctor.

M. A. Basir, our College skipper, led our team ably in every match. He is full of strokes and if he gets going, his batting is a pleasure to watch. Sankar Adyantiah and Asghar Ali bowled well throughout the season.

The Finals of the Inter-Class Cricket Tournament was won by the first year students. The credit goes to Wilson for his batting and Asghar Ali for his bowling. The Clinicals beat the Pre-clinicals to win the Bashyam Memorial Shield this year.

Hockey:—After a break of some years, we have once again won the Inter-Collegiate League Tournament along with the Loyola College.

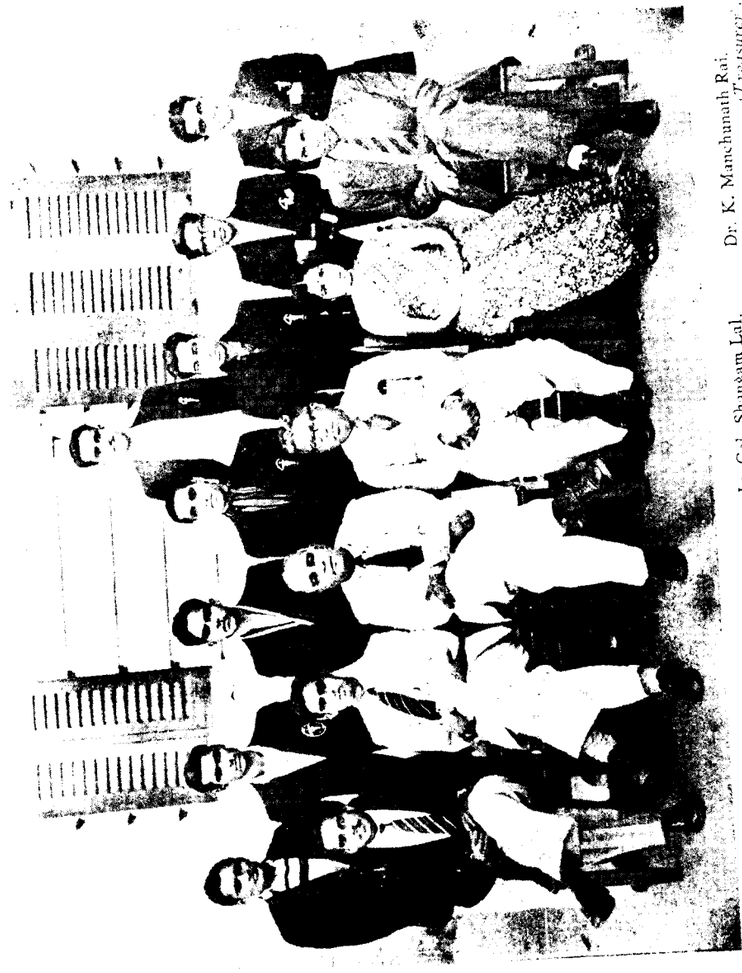
Although we gave our entry for the Stoke Shield, we had to concede a walk-over in the first round owing to the difficulty of raising a team.

The defence was strengthened by the inclusion of Dr. Ince who is now a member of the college staff. Chandrasekharan played well throughout the season as centre-half. Ashe was out-standing in the forward line. The defence was ably supported by P. Bhaskar Reddy, Sounder Rajan and forward line by Ramalingam.

Football:—It is with a certain amount of pride, we say, that our Football team was the only side that showed a lot of enthusiasm to play the game and the players always played with vigour and as a team. Hence the reward they so richly deserved. We won the Inter-Collegiate League Tournament, May and Baker Tournament conducted by our college, beating the Stanley Medicals in the finals, and the Pachaiyappas College Tournament. In the knock out tournament for the Wilson Cup, we lost to the Stanley Medical College in the final after two replays.

P. Viswanathan was indeed a lucky captian to have a balanced side, served well in every department. P. Madhavan was the most opportune forward and also a tireless footballer. The defence was well served with A. B. Ramachandra Reddy and Mathew with Kailasam at the pivot.

The Football team was a happy mixture of tiny little men and big made boys—but though tiny in stature, their performance in every match was commendable.



M. M. C. Athletic Committee 1948-'49.

Sitting—Dr. K. P. Sarathy, Mr. M. Swaminathan, *(Phy. Director)*, Miss. Leela Menon *(Lady Representative)*, Mr. B. Krupa Rao, Mr. Haneef Pasha, Mr. George Taliat.

Standing—Mr. Sundaram, Mr. Gurupadam.

Second Row—Lt. Col. Shangam Lal *(President)*, Dr. K. Manchanath Rai *(Treasurer)*, Mr. A. B. Ramachandra Reddy *(Sports Secretary)*, Mr. Mohammed Unni, Mr. Basir, Mr. Viswanathan.

The Basket Ball—1948-'49.

Winners of the Inter-Collegiate League Tournament.

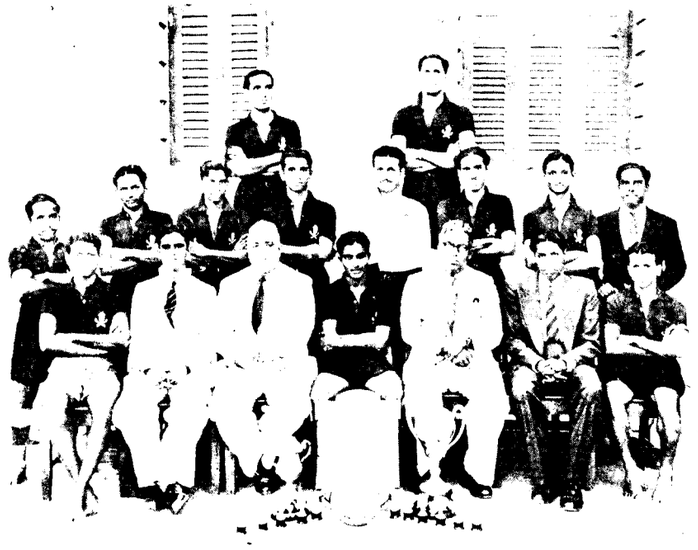
The Hockey—1948-'49.

Winners of the Inter-Collegiate League Tournament.

The Volley Ball—1948-'49.

Winners of Loyola College Volley Ball Tournament.

The Foot Ball—1948-'49.



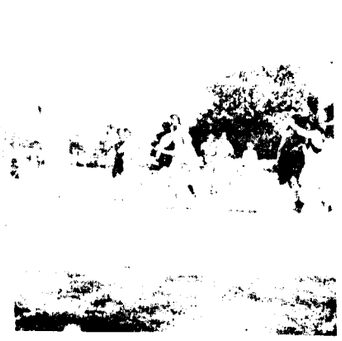
Winners of Inter-Collegiate league May & Baker Tournament and the B. V. Narayanaswami Foot Ball Tournament.

Sports-day Snaps

Arch-Victors Stand

Ladies' Race

Ladies' Hurdles



Ladies' Race

Distinguished Guests at the College Sports. by K. Balaraman

Shot-put.

Men's Hostel Warden
at the Balloon Race.

Staff Pic...

The M. M. C. Tennis Club 1948-'49.

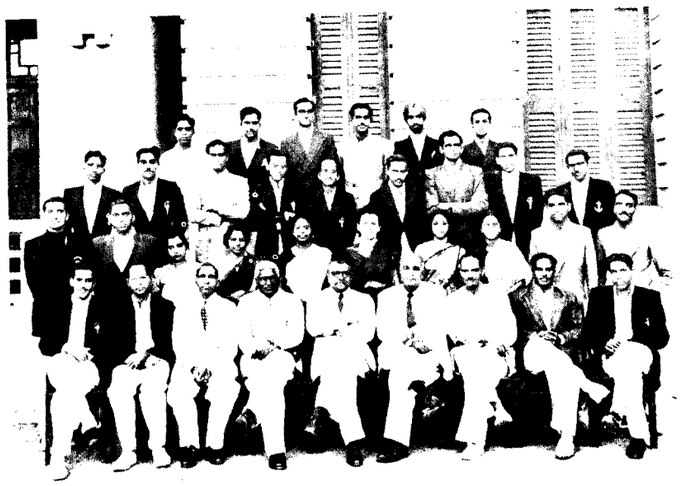


Photo taken on the occasion of the Tennis Social.

Basket Ball:—We are glad to announce that we won the Inter-Collegiate Basket Ball along with the Loyola College. Though we lost the Loyola College Tournament and the Inter-Collegiate knock-out Tournament, our boys put up a plucky display in both the tournaments.

The new additions for our Basket Ball team were R. J. Rajasekaran and Munawar Khan. Gurupadam and Rajasekaran were selected to play for the University team which won the All-India University Basket Ball Tournament for the first time.

Volley Ball:—Our volley ball team under the captaincy of Md. Unni annexed the Volley Ball tournament conducted by the Loyola College beating the St. Josephs in the finals.

In the Inter-Coll .e League Tournament we lost the vital match against the Christian C .ege which deprived us of the League honours.

Tennis:—The College representatives in singles were K. T. Mathew and George Mathew and in doubles K. T. Mathew and Jamal. Later on Gandhi took the place of George Mathew.

Gandhi is a potential singles player and will be an asset for the college for some more time. K. T. Mathew is a very much improved player. He has improved his stroke play and steadiness.

Keen interest was shown in the college Tennis tournament in Men's Singles, Doubles and Mixed Doubles. This is the first time that so many girls showed some enterprise without being coaxed to enter for the tournament.

Boxing:—C. R. Sundaram, our Boxing Captain was quite enterprising in getting his men in condition for the Inter-Collegiate knock-out Tournament. P. L. Rangan won his fight in paper weight. He was selected to represent the Madras University in that weight in the Inter-University Boxing Tournament to be held at Nagpur. In the open Amateur Boxing competition, Dennis Ashe and Raju entered for the competition representing our college.

Track & Field Sports:—The Athle Team was considerably strengthened by the addition of B. S. Wilson and R. J. Rajasekhar from the Christian College.

The Madras University Athletic team which went to Ceylon included three athlets from our college, *viz.*, S. Shunmugasundaram, J. W. Desmond and R. J. Rajasekhar. Shunmugasundaram came third in the 100 Metres race, Desmond second in the 110 Metres Hurdles and Rajasekharan was

the most successful athlete, coming first in 1500 Metres race and the 5000 Metres race. Our Champion Athletic Shanmugasundaram should have done well but for his indisposition.

The Inter-Collegiate Athletic Sports meet took place on 17th and 18th February. Here too we could not do well as both our Star athlets Shanmugasundaram and Krupa Rao were unable to take part on the final day due to fever, having done marvellously in the heats, the previous day.

Ladies:—In the Inter-Collegiate tournaments, we entered for Throw Ball, Tennicoit, Badminton and Tennis.

The Women's Inter-Collegiate Association for the first time organised a Sports meet which was conducted at the Y.M.C.A. ground last week. Our college secured the 4th place with 5 points. Miss. De Cruz took credit by winning the Fast Cycle race.

In the Carnival Cricket match played between the College girls and the boys, the match ended in a draw, time coming to the rescue for the boy's team.

In conclusion, we would say that the activities of the Athletic Club have come to a successful end and we are hoping for a brighter season of sporting activities for the year to come. We wish to all the outgoing Athlets and members of our Featus, a happy and prosperous future.

A. B. Ramachandra Reddy,
Sports Secretary, 1948-'49.

The Madras Medical College Hostel (Men's Section)

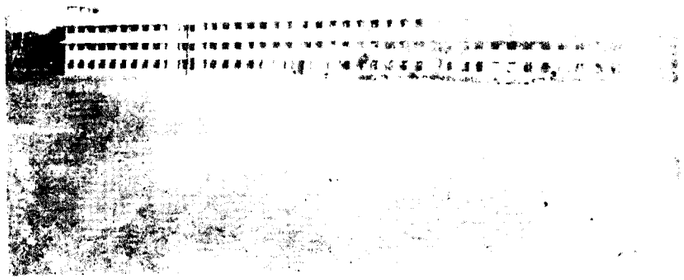
THE ANNUAL REPORT.

Mr. President, Mr. Speaker, Ladies & Gentlemen,

The term Annual Report is rather too reminiscent of the annual meeting of the Stock-Holders of a consolidated company—fallaciously so because nothing can be further from the gala gaiety of this festive occasion than the dignified pomposity of broad-belted business-men. Nevertheless I have to present this Annual Report. How can I make this Report if I do not mention the early morning Epidemic of alarms that startle one out of sweet sleep, the clock clock of clanging clogs that go in search of uncertain water and the all too few serviceable bathrooms, the queue for the bathroom, the queue for the W. C., the blunt, blast and the rasping skin, the rush for the breakfast and the hustle bustle of getting into the protesting bus and last minute, 'hold ons' that echo from the different parts of the hostel from various persons in various stages of dress or undress. How can I omit these details, for they form the very fabric, the weap and woof of our lives in this Hostel. One is apt to dismiss these as petty details not worth reporting in an annual report but I rather think that these details or the important components of a man's life, that make it either the helter—skelter race to catch up with one's own centre of gravity as here to-day or the serene flow of an amiable river. If to-day we ask that we be allowed to improve our lot, we are not asking for grandiose sky scrapers or air-conditioned flats; we only ask that we be given taps that have a habit of yielding up—water instead of the futile hiss that greet us here, that we be given a dining hall where we can practise a little of the Hygiene we preach, that we be given rooms from which the breeze is not architecturally excluded, that we be given a hostel where double rooms remain thereby double and do not develop into the eternally dangerous triangles and finally a hostel which does not necessitate the daily pilgrimage of 6 miles to college and back. We do not forget that there is a ready reply to all our pleadings that there is no money in the bank though the will to help is there. But we cannot help noticing that sister - institutions like the recently hatched egg of a Stanley Medical College are going ahead with extensions and constructions and though we have no desire to envy them we cannot help comparisons from colouring our thoughts. We cannot help asking whether longivity in an institution is a sin in itself, whether having celebrated one's centenary 14 years ago is a crime or whether, institutions are like girls who must be young and winsome if they want to get at hidden coffers. Or perhaps like great men who are said to suffer greatly for their greatness, we students here have to pay for the greatness of our great institutions name. Otherwise I can

trace no logic in this step-motherly attitude meted out to us. But even step-mothers must die. She has existed all these long years for us and I am sure the time has come for her to die - and we hope that in this present government we shall see a motherly attitude replacing the step-motherly one. Perhaps we have an indication of their good-will in their decision to recommend for our use a plot of ground near the Stanley Club near enough to the college for our convenience. The ground got, we must have a building. To have the building, we must have money. And money is a scarce commodity, those who have it will tell you and those who don't have it will know. In the centre page of your programme books, you will find an appeal printed which states our case clearly. I have the honour to call upon the Hon'ble Speaker of the Day to inaugurate the Madras Medical College Hostel Building Fund. We realise this is rather an ambitious scheme but we are credulous enough of the essential good nature of the generally an apathetic public to believe that we shall have a good response from you –that esp. the guest amongst you will have a sneaking feeling, when they get home that whether the wife objects or the husband postpones, justice requires that you do your best to help us. Thank you all in advance and in anticipation.

The year under review began, as all years usually begin, with the influx of a larger set of freshers than usual. Since there was no initiation ceremony, they adjusted themselves to prevailing conditions more slowly than might have been. The elections for the offices were held soon after. Mr. V. V. V. Menon was elected General Secretary. Mr. P. Viswanath, Sports Secretary, Mr. V. R. Palaniswamy, Bus Secretary, Mr. D. Ramachandra Reddy, Garden Secretary, Mr. N. Rajan the Reading Room Secretary and Mr. G. Sreenivasan the Radio Secretary. We celebrated Anniversary of our Independence August 15th chastely but proudly and at dusk, on the terrace Mrs. Radhabai Subbaroyan unveiled Gandhiji's portrait. The portrait was very generously given to us by Dr. Cherian, who had just left office and whose instructive understanding of the student's hopes is a thing of marvel. On 28th of August we held a reception to the graduates of the year from our Hostel Hon'ble Sri A. B. Shetty, inister for Public Health and Medicine presided and Dr. U. Krishna Rao the Mayor of Madras addressed the graduates. In the IV term, our warden of 7 year's standing Dr. A. Anantanarayana Iyer took it into his head that he owed a greater duty to monkeys and elephant foetuses than he did to our Hostel and forthwith retired from the wardenship. I could follow the custom and declare that I place on record his many qualities of head and heart. But what matters more than such black and white records in the ever vital record we have in our minds, the living sense of his continued, kindness to us, his understanding, his gift of human sympathy his freedom from petty prejudice and his sense of compromise. His gift of lucid speech and comprehensive outlook only further enhanced his figure.



Madras Medical College Hostel Men's Section.

Our Hostel Athletic Champion
Mr. Krupa Rao (1947-48-49.)

Miss. Shanta & Miss. Vasanta daughters of Dr. D. S. Iyer, F.R.C.S., Surgeon, General Hospital, gave a pleasant dance recital on the occasion of Men's Hostel day.

Winners of Inter-Collegiate Dramatic Competition.

In him we lost a great deal that was dear to us. He let us give him a party of farewell where he made a speech that was not a little touching. We wish him all the best and may science benefit from our loss. Dr. Ratnavelu Subramaniam came in his stead. He has shown keen interest in us, a comprehensive grasp of our needs, initiative in getting ahead with things and much more of tolerance for our patented sort of foolery, than we expected. In short where we had feared of a silent and terrible man we found a not very silent nor very terrible doctor. May our connection endure is my hope.

Finally may I say that it is both a matter of duty, and pleasure for me to place on record the uniform sympathy and attention I have always got from the three different Principals of the year, Dr. Cherian, Dr. Rajam, and Dr. Mudaliyar during the term of Dr. Rajam's leave I would also like to say that though this year may not be very different from any other year, we hostellers have upheld our reputation for Co-operation, non-communal endeavours and happpy comaraderi.

THANK YOU.

Foot-Ball

BY

(P. VISWANATHAN, *Captain.*)

It is with immense pride and pleasure that I present this annual report. Pride, because we came finalists in four out of four tournaments conducted during this year and came out in flying colours in three of them losing the other by the skin of the teeth. Pleasure, because the spirit, enthusiasm and sportsmanship shown individually made us a rare combination which functioned like an oiled machine and undaunted we took the field to play the game always for the pleasure of it.

When I was elected captain there fell on me the unpleasant job of the reconstruction of our team which had given rise to as many as five vacancies. The gap between the goal posts was ably filled up by Denis whose regimen within the goal area was supreme and he struck great form with a steady nerve. Mohamed Unni, our other custodian rose to the occasion whenever the former absented himself. The two pillars of strength Mathew the Manna of our team with his 75-yard kicks and hefty clearances and Ramachandra Reddy the Jeraffe of 'Blues' fame with his virile tackling and powerful headers leaving nothing go past them, they remained Stalwart backs as they ever were. An entirely new half line had to be formed and there came up the sky-scraper Subramanian at left half, Kailasam an ex-Loyolite at the pivot and Veluswamy or Shanmugasundaram at the right half. They formed a well balanced trio and forming a Blitzkrieg attack they remained a menace to the opponents. The forward line continued to be the same with Gangadharan and Delip taking up the left extreme position in turns, the inner trio formed by Poornan in the centre, Madhavan on his right and I on his left and Govinda Menon our hare at the right extreme position. Their performance need no Comment since the number of goals they scored would suggest what is not mentioned.

In league, apart from winning the honours outright, unbeaten, we have created a record number of 56 goals against 6 in 10 matches. We started the season brilliantly with runaway Victories in the first half a dozen matches against Pachaippas, Loyola, Presidency, Veterinary, Technology and Vivekananda by 5-1, 4-1, 7-0, 6-0, 6-1 and 7-0 goals respectively. Our sister institution came up next and the match would have ended in favour of us but for a self-goal at the fag end finding the teams on level terms. Madras Christian College (apologies to my Alma

Mater), Engineering and Law faced the same Medicoes and returned with 8-0, 5-1 and 6-1 goals respectively to their credit! Thus we emerged out unbeaten Champions.

In the Wilson Cup tournament after beating Veterinary and Loyola we met Stanley Medical in the Final. It was a tough fight and our boys played brilliant foot ball and on two occasions would have clinched the the issue but for ill-luck taking the upper hand in drawing level. In the third encounter however we asked for a goal and got it—the only defeat of the year.

Unmolested by this reverse we fought back in the May & Baker Foot Ball tournament and defeated Stanley Medical in the Final by a clear margin after beating Pachaippas and Stanley 'B' in the earlier rounds and annexed the Shield for the third year in Succession.

The Narayanaswamy Naidu Cup tournament again saw us emerging out Victorious. After beating Loyola we met Pachaippas in final and gave them three clear goals to win the cup for the Second time in Succession.

Nothing but Victories marked a year of great pride and pleasure. My Successor will be faced with the task of filling in the places of Poornan, Mustapha and Govinda Menon who have left us after graduation and the task will not be easy as it may appear; for these Varsity Blues had been monopolising their respective positions in the team for (??) years. May their Victories on the field pave way for Success in life. I wish them all luck for a bright and happy future. It will not be complete without my thanking my team-mates for their Co-operation, enthusiasm and team spirit but for which my task would have been impossible.

I wish my successor all luck and Success during the Coming Season.

Report of Madras Medical College Hostel (Women's Section)

1948—'49.

The light has gone from our midst. Yet, we rekindled the sacred memory and the noble ideals of HIM, the saviour of our nation by unveiling his portrait. Months and months have rolled by since we achieved our long cherished goal we proudly hoisted the flag on memorable August 15th with strong determination to be always true to our revered MOTHER.

In our small sphere too, many changes were wrought I mean regarding wardens Dr. S. Souri our erstwhile warden who strove to do her best left us to win laurels in a foreign land. I shall fail in my duty if I do not make special reference about her extreme regard and consideration for the welfare of the students. We arranged a farewell party on the eve of her departure. Best of luck to her. Dr. A. Thomas took charge of us much against her inclinations. Naturally she preferred her lucrative practice. It must be said to her credit that she took special interest in improving our Mess. Dr. A. Thomas was relieved by Dr. Lily Ephrain we hope she will like us and stay with us long.

July, was ushered in by smiling freshers. But, then smiles were soon wiped away when we found that our dear bus had to take a prolonged rest cure. For months on months we struggled in the queue at the Purasawalkam Bus Stop till to our great relief the Vice-Principal did his best to get it back for us. Our rickety old bus deserves a well earned rest and should be substituted by decent one. My only hope is that, the authorities concerned will give earnest consideration to this matter and do the needful.

The main headache of the hostellers is lack of accommodation. It is a pity that the hopeful freshers have to be sadly disappointed at this undesirable state of affairs. Even the extensive grassy lawn we boasted of is being marked off for private buildings.

The Hostel day was a splendid success under the presidentship of our principal Dr. R. V. Rajam. Our talented inmates put up a good show and entertained the guests.

Living as we do in a land of hope let us be optimistic and may things take a better shape in the coming year!

—*C. Radha, Hostel Secretary.*

Proceedings of Madras General Hospital Clinical Society

Department of Pathology:

AN ANALYSIS OF 34 STOMACHS RESECTED SURGICALLY.

34 Specimens of stomach were received for histological examination during the last three months. The following is the analysis of the pathological conditions:

Gastric Ulcer	...	14
Gastric Erosion	...	1
Duodenal Ulcer	...	7
Carcinoma	...	4
Anastomotic Ulcer	...	2
Pancreatic rest in the second part of duodenum	...	1
No ulcer in the specimen received	...	5
		34

Observations:—This apparent greater incidence of gastric ulcer is perhaps due to the conservative type of surgery in cases of cicatrising duodenal ulcers-gastro-jejunostomy is the choice of operation in cases of post-inflammatory stenosis or in cases where gastro-duodenectomy is technically difficult?

2 4 cases of carcinoma of the stomach 11.8%—is an alarmingly larger incidence of neoplasm. One of the resected specimens showed a highly anaplastic growth and the surgeon had to undertake resection to relive pain and to prevent perforation and peritonitis.

3. Unabsorbed silk was found in one of the anastomotic ulcers—the ends of the silk were lying loose in the lumen of the stomach.

4. One case of tumour duodenum detected radiologically on resection was proved to be a submucous pancreatic rest.

From Dr. B. H. P. Pai's Unit:

A CASE OF THROMBOSIS OF THE POSTERIOR INFERIOR CEREBELLAR ARTERY.

Patient V, aged 48, was admitted for headache, giddiness and inability to appreciate heat and pain over the right half of the body since one month.

Previous Illness:—No history of sore penis or exposure to venereal infection or attacks of monoplegia, hemiplegia or aphasia. **Family History:** No abortions or neonatal deaths in wife's obstetrical history. **History of Present Illness:** One month back the patient was seized with a sudden attack of occipital headache with severe vertigo and vomiting. He was speechless for nearly 2 days and a little dazed. He had

nasal regurgitation of fluids and also persistent hiccup, during this period. He did not have paralysis of any of his limbs though he noticed some weakness in his left upper extremity. Just by chance he came to know he could not appreciate sensation of heat in his right hand. The headache is present even now though in a mitigated form and vertigo is only slight. No nasal regurgitation of fluids now. Sensory trouble still persists unmitigated. **Condition on Admission:** Fairly well nourished—about 50 years—No obvious facial asymmetry—Tongue no atrophy or fibrillation. **Central Nervous System:** Intelligence and memory normal. Speech—nasal. **Cranial Nerves:** Diminished movement of the left half of the soft palate on the left side Pupils normal. **Motor System:** Fine tremors of both the hands. Power diminished slightly in all the muscles of the left upper extremity. No diminution in tone. Coordination impaired in the same limb. **Sensory System:** Hemithermoanaesthesia and hemianalgesia right side—upto the mid-cervical region. Sensations normal over the face **Reflexes:** All normal. **Gait:** A little unsteady—No tendency to fall on either side. **Cardio-vascular System:** Normal except for accentuation of the 2nd sound in the Aortic area.

Investigations:—Blood pressure: 125/90 mm. Hg. Blood Kahn—Negative. Fundus: Arteriosclerotic changes both eyes. X-ray chest: ? Atheromatous Aorta. C. S. F. Clear, not under tension. Queckenstedt's Sign: Positive (*i.e.* No evidence of spinal block). Proteins 60 mgms.%, Globulin nil. Cells nil. **C. S. F. W. R.** O. ic.c.—Negative. 0.5 c.c. Negative.

On the strength of: (1) the characteristic history namely—Dramatically sudden onset of headache, vertigo, vomiting with subsequent nasal voice, nasal regurgitation of fluids and sensory disturbances, (2) the characteristic neurological findings—Paresis of left half of soft palate, nasal in voice, incoordination on the left side, with hemithermanaesthesia and hemianalgesia on the right side of the body excluding the face, (3) evidence of arteriosclerosis—both in Aorta and retinal vessels, (4) negative clinical and serological evidence for syphilis, a diagnosis of Thrombosis of the left posterior inferior cerebellar artery—most porbably atherosclerotic in origin—has been made. The clinical picture is practically complete except for absence of evidence of Quintothalamic tract on the ipsilateral side. There in no knowing whether the tract was never involved or whether it was involved but has recovered now.

From Lt. Col. C. K. Prasada Rao's Unit:

RESULTS OF TREATMENT WITH 'METHIONINE' IN THREE CASES OF DIFFUSE FATTY INFILTRATION OF THE LIVER.

I am presenting 3 cases of Diffuse fatty infiltration of the liver treated with Methionine, the sulphur containing lipotropic amino acid which has been reputed by many workers as a cure or relief of this condition.

1st case:—P, aged 15, was admitted for pain in the epigastrium of 2 months' duration.

Dietetic:—Staple food was ragi and kambu. His vegetables were tamarind and chillies. Fish or mutton dish was a rarity. Milk was unheard of.

Previous history:—Patient had night blindness about 4 years ago. Had malaria about 2 months before admission.

On examination:—Patient was a thin, anaemic individual. He had a firm smooth palpable liver of about 4 fingers below the costal margin. Not tender. Weight of the patient: 46 lbs.

Investigations:—Motion: showed ankylostome ova. Urine: Nil abnormal detected. Total serum proteins and albumen globulin were normal. Hippuric acid excretion was 2.8 G. for 4 hours. W. R. and Kahn negative. Ba. swallow showed no esophageal.

A clinical diagnosis of amoebic hepatitis was made and the patient was treated with Emetine for one week. Patient did not show any improvement. A liver biopsy was done at the end of the emetine treatment and the report was Fatty degeneration of the liver and no fibrosis. Patient was treated for ankylostome anaemia and he was started on Methionine 2 gms. a day with higher protein diet for about 2 months. At the end of 2 months patient had gained much weight. Size of the liver had increased to about 6 fingers breadth below the costal margin. A spleen became just palpable below the costal margin. A second liver biopsy was done. It showed no increase of fibrous tissue, but the fatty degeneration was not so evident as in the previous biopsy. Methionine was continued for another 3 months with an increased dose of 3 gms. a day and high protein diet. At the end of 3 months, his weight is 86 lbs; Appetite is good; the size of the liver has gone down to about 4 finger's breadth below the costal margin. His spleen is palpable a finger's breadth below the costal margin.

Following investigations were done again: Blood picture is normal. Total serum proteins and albumen globulin normal. Hippuric excretion was 4.5 G. at the end of 4 hours. A third liver biopsy was done. It showed lobular hyperplasia of the liver cells with degenerative changes. Bands of fibrous tissue seen in between the lobules. Though the general condition of the patient has improved much, we have not been able to stop the relentless progress of cirrhosis with Methionine and high protein diet inspite of the fact that the patient came under observation and treatment at the early stage of cirrhosis namely Diffuse Fatty Infiltration of the Liver.

2nd case:—D, aged about 20, was admitted with the complaints of night blindness of 6 months duration and swelling of the abdomen of one month's duration.

His staple food was rice with the addition of mutton or fish once in fifteen days and vegetables once in two or three days. Patient not addicted to alcohol. Patient had malaria about a year ago for which he was treated in the Royapuram Hospital.

On admission:—The patient had ascites and soft pitting oedema lower extremities. Had no haematemisis or malaria. Had diarrhoea.

General condition:—The patient thin, anaemic, jaundiced with protruberant abdomen with wasted upper extremities. Had prominent veins over the abdominal wall filling up from below.

On examination:—Alimentary system—Signs of free fluid present. A soft palpable liver was present 3 fingers below the costal margin. Spleen was palpable 5 fingers below the costal margin.

Respiratory system: showed nil abnormal. Cardio-vascular system: Soft systolic murmur heard over the pericardium. Following investigations were done: Urine: showed bile pigments. R. B. C.—2 millions per c/mm. W. B. C.—2,200. Colour index: 1.38. Volume Index: 1.27. Icteric Index: 40 units. Vanden Bergh: Biphasic. E. S. R.—15 minutes—80 m.m. E. S. R. 45 minutes—142 m.m. Blood W. R. and Kahn—Negative. Total serum protein 8.75 gm.% Albumin 2.63 gm.% Globulin 6.12 gm.% X-ray of the gall bladder area and cholycystogram—no gall stones were visualised. Splenic and sternal punctures were done on two occasions and were negative for L. D. bodies or malarial parasite. Fragility of R. B. Cs. within normal limits. Bleeding time and coagulation time were within normal limits. A liver biopsy

was done. Report was liver cells show fatty degeneration. No cirrhotic change seen in biopsy tissue. From the above findings and from the liver biopsy report a diagnosis of fatty degeneration was made. Patient was treated after paracentesis and mersalyl by I. V. with methionine 3 gms. a day and high protein diet. Paracentesis had to be repeated at the end of fifteen days. The treatment was continued for 3 months. In addition, the patient got liver extract twice a week and mixture Heparol by mouth. At the end of 3 months, condition was as follows: The patient had no night blindness, no jaundice, no ascites, no oedema of lower extremities. Apetite was good. Liver was not palpable, Spleen was of the same size. Following investigations were done: R. B. C.—3 million. Hb%—9.5 gms. Colour Index Volume Index nearly 1. Blood condition has evidently improved only slightly. W. B. C.—2,200. Lucopaenia persisted. Icteric Index 20 units. Vanden Bergh- Biphasic. During the period of observation, the patient had twice epistaxis and filarial epidydymoorchitis. A second biopsy was attempted. Biopsy was not successful as the needle would not cut through the liver. I have observed that the slipping is an indication of marked fibrosis of the liver. Considering the presence of leucopenia splenic enlargement, evidence of cirrhosis of liver and epistaxis Banti's Syndrome seemed a great possibility. Splenectomy was decided upon. Patient was operated upon by Major D. K. Sabesan. On Laparotomy there was little fluid in the peritoneal cavity. A large a big firm spleen, a shrunken distorted, highly nodular liver which Major Sabesan has aptly described as "Karnakaingu" was seen. Gall bladder was normal. No other pathology (described) Splenectomy was done. During the post-operative period, the patient had pyrexia which was controlled by penicillin and sulphadiazine. Pathological report of spleen—Weight of spleen 4 lb. Capsule thickened. Sinusoids dilated. Hypoplasia of the pulp Atrophy of the malphigian follicles. Punctate haemorrhages and siderotic nodules were seen. The whole histological picture was that of Banti's spleen. To observe the effect of splenectomy methionine was suspended. At the end of three months after splenectomy following investigations were done: R. B. C. 5.67 mils/c.mm. Hb. 17 gms. W. B. C. —12,200. Eosinophilic preponderance of 43%. Total serum proteins 8.5 gms. Albumin 3.4 gms. Globulin 5.1 gms. Icteric index—8 units. Van Den Bergh—Negative. E. S. R. 15'—35 m.m. E. S. R. 45'—107 m.m. Bleeding time and coagulation time within normal limits. Liver biopsy was done a third time. Report was: Large tracts of fibrous tissue in between lobules. Parenchymal cells show degenerative changes and Sinusoids dilated. Patient at present is completely free from ascites; very active. Apetite good. Has put on weight. Liver is not palpable. Anybody examining him now will hardly realise that he has the advanced cirrhosis of multilobular type. This case has shown remarkable improvement during the period of observation and treatment. How much of it can be ascribed to Methionine and how much to splenectomy is not very clear.

3rd case:—B, aged about 12, was admitted with the complaint of pain in the epigastrium of a month's duration. Patient had a simlar attack about 3 months ago.

The important clinical findings are a soft tender palpable liver 2 fingers below the costal margin with leucocytosis 17,000 per c. m. m and pyrexia. So a provisional diagnosis of amoebic hepatitis was made and was treated with Emetine with no improvement. A plain x-ray of the abdomen was taken and it showed multiple pancreatic calculi. Liver biopsy was done which showed extensive fatty infiltration. Patient has been treated with Methionine 3 gms. a day and a high protein diet. At the end of two months, his liver is still the same size. Has no pyrexia. A second biopsy has been done and the report is: Fatty degeneration and early fibrosis. This case presents the rare incidence of pancreatic calculi with diffuse fatty infiltration of the liver.

Dr. S. T. Achar:—Since methionine is costly it is worth while trying a ten cases on this alone and evaluate the same.

Dr. N. S. N. Iyer:—Ancient Indian physicians have advocated goat liver for cirrhosis liver. After omentopexy prominence of the abdominal veins, lumbar veins and pudendal and penile veins might occur. He recalled a case in which a man came under observation for bleeding from a penile vein sixteen years after the omentopexy. Patient lined for four years after this incident.

Dr. Thangavelu:—Early stages fatty infiltration occurs and are revertible with methionine but in late cases with fibrosis the process is ireversible and methionine is of no value.

Summary:

1. Three cases of diffuse fatty infiltration of the liver were selected for methionine treatment.

2. In addition to the fatty infiltration, one case had ankylostome infection, another filarial infection and the third the rare condition of multiple pancreatic calculi.

3. All of them were given a high protein diet. Diet consisted of: (1) 6 oz. of rice. (2) 2 pints of milk. (3) 4 oz. of minced meat alternating once in 3 days with 4 oz. of boiled liver. (4) 6—10 oranges. (5) 6 oz. of vegetables. (6) Coffee. In addition, they had multivit tablets one three times a day.

4. All the three cases were given Methionine 3 gms. a day over a varying period of ranging from 2 to about 5 months.

5. All the three cases showed remarkable clinical improvement.

6. There was some improvement in laboratory findings though not proportional to the clinical improvement.

7. In all the three cases liver biopsies were done before and after treatment. Before treatment they all showed diffuse fatty infiltration of the liver. At the end of the treatment, the biopsy revealed commencing fibrosis in 2 cases and advanced fibrosis in the third. Evidently the one which showed extensive fibrosis must have had an acute massive necrosis of the liver and the clinical picture is in accordance with that sinus.

Conclusion:—Only three cases were tried on methionine. In view of the fact that they all showed very good clinical improvement and moderate improvement in laboratory findings though the cirrhosis of the liver was progressive, it is worth-while trying the drug on a greater number of cases before we come to a definite conclusion.

From Lt. Col. C. K. Prasada Rao's Unit:

A CASE OF 'HEPATOMA' PROVED BY BIOPSY.

This case is presented as one of hepatoma where the liver biopsy confirmed the clinical diagnosis and thus showing the usefulness of biopsy in establishing diagnosis. Patient R, was admitted with pain in the right side of the chest. For a similar complaint, patient was once before admitted about 10 months ago. The following were the findings then. Liver palpable 5 fingers below the costal margin. No free fluid in the abdomen. No jaundice.

Investigations:—W.B.C. 10,000 c.mm. Blood W. R. and Kahn Negative. X-ray chest—Nil abnormal detected. F. T. M. showed achlorhydria. No blood in any specimen. Ba-meal: did not reveal any pathology. Glucose tolerance test was normal. A needle was put into the liver and only blood was withdrawn. Patient was discharged as hepatomegaly. At present his liver is palpable 6 fingers below the costal margin.

Investigations:—Urine: Nil particular. Motion: Nil particular. R. B. C.—3.3 million. Hb%—50% W. B. C.—5,000/c.mm. X-ray lungs: Nil abnormal. R. F.—Nil abnormal. Gell and Chopra: Positive. Sternal puncture: Negative. B. S. R.—15 minutes: 8 m.m. B. S. R.—45 minutes: 50 m.m. A liver biopsy was done. It showed a number of giant cells suggestive of malignant origin. Hepatoma or hyperplastic nodule. This only proves the well-known fact that malignancy often supervenes a cirrhotic liver.

From Lt. Col. C. K. Prasada Rao's Unit :

A CASE OF LUTEMBACHER'S SYNDROME.

I am presenting this case as one of interauricular septal defect in association with mitral stenosis which is congenital in a ll probability. A, male, aged 19 years, was admitted on 4—3—1949, with the history of breathlessness on moderate exertion of 10 years duration. The patient distinctly remembers that he was not able to compete and play with his school-mates as he used to become breathless on exertion (*i.e.*, when he was about 7 or 8 years). The complaint is more prominent and distressing for the past 3 years with occasional attacks of palpitation and pain in the chest. On examination —The patient is a moderately nourished individual. No clubbing of fingers; no cyanosis; no edema. Patient is not anaemic.

Cardio-vascular system :—Diffuse pulsations could be seen over the second and third left space. Apical impulse heaving in nature was seen in the 6th space half an inch external to the left mid-clavicular line. A systolic thrill is felt in the third left space just to the left of left border of sternum. On auscultation—over the mitral area we hear a short accentuated first sound preceded by a rumbling presystolic murmer and followed by the second sound. Over the second and third left spaces we her both the sounds with the accentuation of the second and with a rough systolic murmer superposing the first sound. The systolic murmur is best heard over the third left space near the edge of sternum. The murmer is not conducted. The murmur is not heard in the left infrascapular region. Pulse 80 per minute. Volume—good, and regular. B. P. 120/70.

Alimentary system :—Showed nothing abnormal except for the slight tenderness over the right hypochondrium.

Investigations :—Urine: was normal. Blood count—R. B. C. 4.4. million. Hb. 85%. Radiological examination on 5—3—49 showed (1) Enlargement of heart both towards right and left. (2) Left border of the heart is straightened. (3) Pulmonary conus prominent. (4) Aorta appears small. Barium swallow and screening showed as follows: (1) Right chamber of the heart is much dilated. In the right oblique view a distinct enlargement of the right auricle could be seen. The right anterior oblique view showed much encroachment of the retrocardiac space more towards the lower part indicating right auricular enlargement predominently. The systolic murmer at the base in this case is taken to be due to interauricular septal defect in view of its position, non-conduction, and marked enlargement of the right auricle. This in association with the mitral stenosis without an uneqivocal history of rheumatism, the suggestion of Lutembacher' Syndrome is made. Patent Ductus arteriosis has been ruled out in this case as there is no conduction of the murmur and no diastolic element in the murmur which is usually present when the systolic murmur is so rough. The difficulties in this case for the diagnosis are: (1) that so far the syndrome is described only in females. (2) The hilar dance which is described in association with this disease also is not present.

Department of Pathology:

AUTOPSY ON A CASE OF BILATERAL ADRENAL HAEMORRHAGE.

S—Female—Age 60. Admitted on 6-3-1949 under Lt. Col. C. K. Prasada Rao. (at 9 A.M.) Died on 6—3—1949 at 10 40 A.M. Diagnosis: Myocardial failure with Pulmonary oedema.

Clinical History :—Admitted in a moribund state—cold and clammy—Pulse imperceptible—Heart sounds feeble marked by coarse crepitations over both lungs. No detailed history as to the onset of illness etc., could be elicited.

Urine :—1015, no sugar, no albumin, no deposit. Total W. B. C, 17,200/ c.mm.

Brief autopsy notes: Respiratory system :—Each lung weighed 1 lb. Cut surfaces of both lungs showed mucus filled bronchioles. Frothy fluid could be expressed on slight pressure. Pleura showed no gross lesions.

Cardio-vascular system :—Petechial haemorrhages over the atreo-ventricular junction. Free margins of valvular cusps showed nodular thickening. Descending aorta showed marked atheromatous ulcerations and in places calcification.

Alimentary system :—Mucous membrane of stomach showed petechial haemorrhages. Lower part of sigmoid and rectum showed evidences of haemorrhages.

Spleen :—2 oz. capsule wrinkled. Pulp soft and diffluent.

Supra-renals :—Right was bulging and almond shaped and prune coloured. Cut surface—the adrenal was converted into a bag holding large blood clot. Left suprarenal showed a haemorrhagic surface with clots scattered here and there Both adrenals were hanging loosely at a distance from the Kidney. Liver, Pancreas, Brain—showed no gross lesions.

Diagnosis :—Bilateral Adrenal haemorrhage.

E. N. T. Department:

1. A CASE OF FACIAL PARALYSIS (RIGHT) DUE TO NEUROFIBROMA UNDERGOING SARCOMATOUS CHANGE.

Patient, S, aged 30, was admitted on 22—2—1949 with a tense cystic swelling oval 1″ × 1½″ at the angle just anterior and external to the right mastoid process. Pressure—Pain. Fascial nerve palsy—M. N. type. Not adherent to underlying structures. Nor does it arise from the sternomastoid—No pulsation. Not transmitted also.

X-rays :—A cystic tumour confirming clinical findings. 23—2—49. Ext. ac. meatus occluded. Sense of tase absent. No temperature. Mastoidectomy right side done.

Biopsy :—Neurofibroma undergoing sarcomatous changes. Fascial palsy improving. 11—3—1949: Referred to Radiology Department for opinion regarding treatment.

15—3—1942: **X-ray** :—Picture is suggestive of mastoid abscess.

2. A CASE OF GROWTH TRACHEA WITH LUNG TUBERCULOSIS.

S, aged 20, was admitted for growth vocal cord. Laryngeal stridor is present. 6—3—49. History of being operated 6 months back. Tracheotomy done. Voice is good. Obstruction to breathing.

X-ray lungs :—Bilateral active lesion.

Bronchoscopy :—By Dr. Prabhu under local. 3" below glottis, the tracheal mucous membrane shows polypoid excrescence. 2 or 3 pieces removed for biopsy. Appearance suggestive of Tuberculoma. No ulceration. Concentration method—Sputum —Negative. Pathological report :—Squamous popilloma with early carcinomatous change. 14—3—49 : Hb : 60% ; R. B. C.—3·9 million, W. B. C.—7,500. 21—3—49 : Case of Malignant growth trachea. Referred to medical side. 22—3—49 : Streptomycin may be tried for the lung condition. (Sd.) R. Subramaniam.

3. A CASE OF CAVERNOUS SINUS THROMBOSIS WITH ? ORIGIN.

P, aged 15, was admitted as O.P. Ear Polypus. It was removed on 3—1—49. Patient developed fever with rigors and proptosis eye ball and extending to the other eye. The ophthalmologist confirmed the diagnosis. Mastoidectomy, ligature of Int. Jugular and lumbar puncture and penicillin cured the patient.

Dr. B. H. P. Pai's Unit.

A CASE OF 'CEREBRAL TUBERCULOMATA ?'

The patient, M, aged 19 years, was admitted for difficulty in using the left upper and lower extremities for the past 7 days. The incident was dramatically sudden in onset and was recognised after an attack of ' stroke ' or loss of consciousness which lasted for about 20 minutes. No history of fits or convulsions of any kind at the time. No evidence of affection of the facial muscles along with the difficulty in the use of the limbs. No history of cough at any time now or in the past. No previous history of similar complaint. 6 months back the patient was suffering from headache mostly over the frontal region which lasted for nearly 3 months and then disappeared. During this period he was having frequent periodical attacks of vomiting without any provocation and not always preceded by nausea. No history of disturbance of vision at any time. History of a transient loss of consciousness with a shortlived fit of generalised convulsions one month back. No history of sore penis or urethral discharge. No abortions or neonatal deaths in the mother's obstetrical history.

Condition on admission :—Well nourished. No obvious asymmetry of the face

Central Nervous System :—Paresis of the right lower facial musculature with normal response to emotional stimuli Pupils—Regular, equal, reacting normally Weakness of all the muscles in the left upper and lower extremities with spasticity of the same limbs. Loss of abdominal reflexes in the left upper and lower quadrants Exaggerated biceps, triceps, supinator, knee ankle jerks on the left side. Extensior plantar response on the left side. Gait—Hemiplegic.

Cardio-vascular system :—Nil abnormal.

Respiratory system :—Impaired resonance over the left infrascapular and infr axillary zones with diminished breath sounds and vocal resonance over the same area

Investigations :—C. S. F. 60 drops/minute, clear. Queckenstedt's sign positive. Proteins 80 mgms%. Globulin plus. Chlorides 620 mgms% Cells nil Sugar 61.7 mgms%. Blood—W. R. and Khan—Negative. **X-ray chest :**—Pleural effusion left side? Infiltration left apex. **Resting gastric juice**—No A. F. B. detected. **X-ray skull** Normal. **Fundus :**—Normal. About 2 or 3 days back the patient is said to have had a fit of unconsciousness with clonic convulsions involving the whole body lasting for about 5—10 minutes.

Diagnosis :—Cerebral Tuberculomata? Discussion :—Dr. C. K. P. Rao recalled another case in his ward admitted for inequality of the pupils and signs of tuberculous meningitis which on opening showed tuberculoma.

Department of Pathology :

AUTOPSY REPORT ON A CASE OF TUBERCULAR MENINGITIS.

Clinical notes :—S, female, 9 year. Admitted 17-1-1949 under Dr. S. T. Achar. Complaint :—Convulsions—4 days. Swelling and pain in the back for 3 months. Family history:—Father had chronic cough. Four days prior to admission the child was drowsy and developed fever and cough and convulsions. No vomiting. On examination :—Child was comatosed. Neck rigidity present.

Autopsy findings :—Lungs :—were congested in the bases. There was no evidence of tuberculosis. The hilar and bronchiol glands were normal. The terminal portions of the ileum showed a number of ulcers in the mucosa, the serous surface being covered with a number of tubercles. The peritoneal cavity was normal. The mesenteric glands were slightly enlarged and caseous. There were no enlarged glands at the porta hepatis and the liver did not show any lesions. The body of the 3rd lumbar vertebra was completely destroyed and collapsed. The fourth lumber vertebra showed a caséous focus in the anterior half of its body. There was an early psoas abscess connected with the 3rd vertebral body. The brain showed a thin exudate over the base and sylvian fissure. There were a few scattered tubercles over the surface of the cerebral hemispheres. There was a large tuberculoma, 2½ c.m. in diameter, embedded in the left cerebellar hemisphere. The tuberculoma appeared to have ruptured into the subarachnoid space. The ventricles were slightly dilated. The C. S. F. was clear and no apparent alteration in amount was noticed.

Comment :—This case is of interest, since the lungs did not show any lesions and the intestinal lesions appear to be the primary complex.

Department of Pathology :

AUTOPSY REPORT ON A CASE OF POLYCYSTIC KIDNEY.

Clinical notes :—Z, aged 30 years, admitted on 27—12—1948 under Dr. C. P. V. Menon. Complaint : Tumour abdomen and painless haematuria for 3 years. On examination :—Soft nodular mass felt in both hypochondriac regions. 7/1. Retrograde pyelogram—elongation and distortion of the calcyces. Intravenous pyelogram—No excretion both kidneys. Blood pressure 200/135. Blood urea 93 mg% on 30—12—48. Urine — albumin plus plus, R. B. C. and W. B. C. plus plus. 12/1. The patient had fits and became unconscious. Died on 13—1—1949.

Autopsy findings :—Heart weighed 420 gms. The left ventricle was hypertrophied. Digestive system was normal and did not show any lesions. Appendix was

soft and showed a diverticulum filled with mucus. The right kidney weighed 4 lb. 6 oz. and the left 3 lb. 4 oz. Both kidney were cystic, the cysts varying in size. The largest cyst measured 9 cm. in diameter. The kidneys were loosely adherent to the surrounding structures. Some cysts contained clear fluid and some blood stained fluid while others showed gelatinous material. The calyces were drawn out and distorted. The pelves did not show any dilatation. The bladder contained a little blood stained urine. Other organs did not show any cysts. The brain was normal.

Comment: This case is presented in view of the recent work done by Lambert on these cases. By serial sections and wax model reconstructions he has shown that the polycystic kidney of the adult contains three types of cysts, the glomerular cyst containing functioning glomeruli, tubular cyst, and excretory cyst. By various tests he has shown that the cystic nephrons of the adult retain a considerable part of their functional ability. This cannot be true of the cystic kidney of the newborn, where the nephrons are closed systems, isolated from the pelvis of the kidney. Hence the infant dies often before birth while the adult survives till the increase in size of the cyst reduces the functioning units to the minimum. (Ref. Arch. Path 44, 1947. pp 34)

Dr. S. T. Achar's Unit:

TWO CASES OF SCHILDER'S DISEASE (ENCEPHALITIS PERIAXALIS)

Case 1. S, age 10 years, male, Hindu. **Chief complaint:**—Fits from 24—7—48. Dragging while walking noticed 2 months before fits. Also slowness in mental activities noticed. No headache. Neva Saw double **Family history:**—Father and mother alive and healthy. Has 2 elder brothers both normal physically and mentally (14 and 16). Has one younger brother who has not been well of late the 2nd case reported here. **Findings:**—Boy of 10, answers questions but appears slightly dull walks with a slightly stiff gait but can walk fast. Both K. J. plus plus. Plantar extensor both sides. No loss of sensation. Sense of positions lower limbs poor. Vibration sense not lost. Optic discs normal.

Case 2. B, age 8 years, younger brother of case 1. **Chief complaint:**—Loss of vision now for 1 month—gradual—before that he was noticed to be getting dull and slight unsteadiness in walking. Hearing also defective for the past one month. **Family history:**—Same as previous case. **Findings:**—Slightly dull in intelligence. Pupils—react to light—equal and normal. Optic discs—normal. Hearing—slight deafness both sides. Slight nystagmus Plantar extensor left side. Right side?

Dr. M. G. Prabhu—are there fits in Shilda's disease?

Answer—Yes. When the demyelination is rapid fit may occur.

Dr. Bhaskaran—How to distinquish cerebral diplegia?

Answer—Children were alright from the beining. Symptoms set in later on only.

Dr. N. S. N.—Suppose myelination has not gone on after the birth, could a syndrome be produced like this.

Answer—Again symptoms have been produced only after 8 years of birth which shows that demyelination has started later on.

Dr. S. T. Achar's Unit:

A CASE OF ANTERIOR POLIO-MYELITIS WITH PARALYSIS OF BOTH LEGS, INTERCOSTAL MUSCLES AND MUSCLES OF NECK, AND PARESIS OF MUSCLES OF UPPER EXTREMITIES.

This baby, 7 months old, was admitted for the following complaints: (1) Inability to move its legs and hold its head for the past 2½ months, (2) feeble voice and difficulty in breathing for the past 2 months. The paralysis of legs unfolded itself in tha course of a few days at first starting as diminished movements and was not preceded by any tenderness of legs. This was followed after about 2 weeks by the head drop. Just preceding this and almost concomittently the child had an attack of cold and cough with feebling of its voice and developed difficulty in breathing. For the past few days, the power in its upper limbs is waning. On examination: No evidence of any cranial nerve palsy. Flaccid paralysis of muscles of lower extremities. No with-drawal reflex. Paresis of upper extremities. Flattening of left side of chest suggestive of wasting of pectorals and intercostal muscles. Breathing is purely abdominal and there is also recession of the lower intercostal spaces. The tendon reflexes are absent. Abdominal reflex could not be elicited. Spine: N. A. D. Cardio-vascular system: Nil particular. Respiratory system: Nil particular, Respiratory system: Few rales scattered over both lungs. No area of impaired resonance. Abdomen: Liver palpable upto 2 fingers below costal margin; soft.

Investigations:—(1) L. P.—Fluid clear. Not under tension. No cells. Total proteins 160 mgms. Globulin plus. Chlorides 700 mgms. Sugar 74.5 mgms. (2) Blood—Total W. B. C.—9,800 per c.mm. R B. C.—5 millions per c.mm. Hb—75% D. C.—P 82, L 15, M 3 (3) Screening—No evidences of paralysis of diaphragm. Lung fields normal. (4) Directoscopy—No evidence of paralysis of vocal cords.

Dr. S. T. Achar:—Diff. Diagnsois: (1) Post Diph. paralysis (2) Infantile Beriberi (3) Infective polyneuritis (4) Anterior polio-myelitis.

In (1) The palatal paralysis is common which is not present. No history of regurgitation of fluid through nose. (2) Beriberi not common in Madras. Wasting of the pectoral muscle is not common. Beriberi does not select any muscle like that. (3) C. S. F. shows a high protein, found in polyneuritis. Intercostal paralysis and unilateral pectoral muscle wasting are not common in infective polyneuritis. So we are left with A. P. M. only.

What is the treatment to be given? Our Iron Lung not useful for children.

A CASE OF JUVENILE DIABETES

Patient, aged 15 years, was admitted on 24th January 1949 for pain in the abdomen and lump in the abdomen since six months. **Family History:**—Mother had two abortions. Has two brothers and two sisters alive. No one else in the family with a similar complaint. **History of present illness:**—Started with pain in the abdomen, felt more in the left hypochondrium. Now the patient feels a lump in the abdomen. There is no history of any relation of the pain to food, nor respiration. The lump in the abdomen is also slightly painful. Patient does not give history of having had fever at any time. No cough, no breathlessness, no edema. No haemoptysis. Appetite good. Bowels constipated. Micturition normal.

Laboratory reports:—Urine Sugar plus, albumin nil, acetone plus. Blood: Hb 50%, W.B.C. 6,000/cm, D.C. P_{66} L_{30} M_4 E_4. Faeces: Formed and very hard. Microsc.-Nil of note. Fundus: Normal. Blood: (1) Cholesterol 5—2—49. 52 m%m% (to be repeated.) (2) Urea: 26 m%m%. (3) Kahn-Negative. (4) Picture bone marrow (sternum) Megalobasts seen. Glucose Tolerance Test:

		Blood sugar.	Urine sugar.
(*a*) Before glucose	...	494 m%m%	plus plus.
(*b*) ½ hour after glucose	...	506.4 m%m%	,, ,,
(*c*) 1 hour ,, ,,	...	571 ,,	plus plus plus.
(*d*) 1½ hours ,, ,,	...	667.7 ,,	,, ,, ,,
(*e*) 2 hours ,, ,,	...	645.2 ,,	,, ,, ,,

Present condition:—Poorly nourished and anaemic. Not cyanosed, not jaundiced. Cervical lymph nodes palpable. No clubbing of fingers. Tongue clean and moist. Teeth clean, but p.a. present. Tonsils enlarged. Skin healthy. **Alimentary system:**—Abdomen appears full. Moves freely with respiration. No evidence of free fluid in the abdomen. Spleen palpable - 3 fingers - firm. Liver palpable - 2 fingers - firm not painful. No upward enlargement of liver. A lump felt in the left iliac fossa? loaded colon. **Respiratory system:**—N. A. D. **Cardio vascular system:**—Heart boundaries within normal limits. Haemic murmurs in the mitral and pulmonary areas. **Central Nervous system:**—N. A. D. **X-rays:**—(1) Chest: Mediastinal shadow: (*a*) within normal, (*b*) Mitralisation of heart. (2) Skull: A. P. and Lateral views. Nil abnormal. **Liver Biopsy:**—(*a*) Cirrhotic changes seen. (*b*) Fatty infiltration. The case has not been presented for the Juvenile Diabetes, but for the associated liver and spleen enlargements. The biopsy report (Liver) shows cirrhotic changes and fatty infiltration. As fatty infiltration is a precedent of cirrhosis liver, it may be that this is a rare case of early Cirrhosis that has come to our notice in the early stages.

Dr. Ramachandran:—We have excluded the common diseases as K. A. and Malaria. Metabolic diseases as Gaucher disease and Niemann picks disease excluded because the fat laiden macrophages are not seen in the bone narrow or liver biopsy. Enlargement of liver is found in Diabetes because of fatty degeneration.

Dr. Bhaskaran:—No doubt, he has cirrhosis but there may be cirrhotic changes in the pancreas and hence a skin clipping may be seen for haemosiderin.

Dr. Ramachandran:—The liver will show the haemosiderin and the liver biopsy does not reveal any haemosiderin.

Dr. Prabhu:—May be a case K. A. still.

Dr. Ramachandran:—Careful examination of marrow has not revealed L. D. bodies. Spleen puncture will be risky because if it is a case of splenomegaly done portal back pressure it will be hazardous.

Department of Pathology:

EWING'S TUMOUR.

In the past decenium, 15 cases were reported as Ewing's Tumour by this department. The age and sex incidence are given below:

Age incidence:—9-13 ... 11 cases
45 and over ... 4 ,,

Sex incidence:—Female: Male—6: 9—2: 3.

Incidence in the different sites:—

Tibia	...	3 cases.
Femur	...	2 ,,
Fibula	...	2 ,,
Clavicle	...	2 ,,
Frontal bone	...	1 case
Mastoid bone	...	1 ,,
Jaw	...	1 ,,
Site not specified	...	3 cases

The flat bones as well as long bones were affected. Only in 2 instances the pre-operative diagnosis was Ewing's. This is a specimen of Ewing's tumour arising from the shaft of the fibula—near its upper end. Following is the case report. A woman 20 years old was admitted under Lt. Col. D. S. Iyer, for pain and swelling in the upper part of right leg. She had pain in that region for three months and she noticed the swelling 1½ months after the onset of pain. There was no history of trauma. The patient was well-nourished and was in good health. Local examination: There was a diffuse fusiform swelling over the upper part of right leg, more prominent on its lateral aspect. The skin was red and shiny and stretched over the tumour. Dilated veins were seen. The skin was freely movable over the tumour. The swelling was warm, not tender. It was firm almost bony hard arising from the upper end of the fibula. Movements of the knee: The last 30 degress of flexion was limited due to the mechanical obstruction. Foot drop was present. Temperature was normal throughout the period.

Laboratory investigations:—Hb—70%. Total W. B. C.—7,200/ c.m. P_{64} L_{30} M_2 E_4. **X-ray of right leg:**—Osteogenic sarcoma arising from the upper end of fibula. X-ray lung—No evidence of secondaries. The pain had to be relieved by injections of morphia. Amputation was done at the middle of right thigh. In the post-operative period a secondary nodule was noticed in the region of the scalp.

I. TWO CASES OF FRACTURES OF NECK OF THE HUMERUS.

These two cases of fractures of the neck of the humerus are presented so as to illustrate the usefulness of early activity. The first is a case of unimpacted abduction fracture of the neck of the humerus. This was reduced under ansesthesia, and immobilised by means of an axillary pad and a bandage round the trunk and upper arm. After 10 days these were removed and active movements begun. He has regained all the movements of the shoulder almost to the full range. The second is also a case of unimpacted abduction fracture. This was reduced and immobilised in plaster of paris for a period of 21 days. For the first few days, the arm was kept by the side; afterwards it was kept in abduction. After 21 days, movements were begun and he has regained a very good range and in the course of a few more days will regain the full range.

II. ARTHRODESIS OF KNEE FOR A CASE OF TUBERCULOSIS OF KNEE.

This is a case of tuberculosis of the knee for which arthrodesis was done. Stability was assured by simply shaping the condyles of femur and tibia; no internal fixation was used. Early weight bearing was instituted with the Pop protection. The end result shows the role of axial compression in promoting osteo-synthesis.

III. A CASE OF FRACTURE OF BOTH FEMORA.

This case demonstrates the end results and functional efficiency irrespective of the radiological findings.

Lt. Col. D. S. Iyer's Unit:

THREE CASES OF NEUROFIBROMA.

Case I:—A, Hindu, male, 12 years. NEUROFIBROMA FOOT. **Complaint**:—Swelling on the sole of the foot (right) - Duration - 10 years. The tumour has been increasing in size for the last 4 years and pain since the growth ulcerated. **Local condition**:—Right foot kept adducted and inverted. Ankle movements - good. A lobulated soft swelling, freely movable over the deeper structures, fungating through the skin, occupying practically the whole of the sole of his foot (right). The fungating surface is slightly pigmented. No sign of inflammation. Regional glands - palpable. No other swellings in the body. Other systems - Nil abnormal. **Investigations**: Hb 50%. Urine - No albumin or sugar. B. P. 110/70. X-ray foot - No bony lesion. 22/1/49. Under general, the tumour was excised by an encircling incision. The tumour was well encapsuled, easily separated from deeper tissues, the main mass arising from the plantar fascia. There were 2 or 3 lobular masses arising from the tendon sheath of the Flexor hallucis longus. The raw area was dressed with vaseline gauze and dressed. **Pathological report**:—Neurofibroma ulcerating through the skin. The nodules at the deeper aspect of the tumour show cellular fibramatous structure.

Differential diagnosis:—Fibroma, Fibrosarcoma, Liposarcoma, Melanoma.

This case is presented for the occurrence of neurefibroma in a rare situation, like the sole of the foot. Neurofibroma was not thought of in the clinical diagnosis.

Case II:—P, Hindu, male, 40 years. Admitted on 18—1—1949. Discharged on 5—2—1949.

Disease:—Multiple Neurofibroma.

Complaint:—Multiple swellings all over the body 1½ months and pain over the sternum.

History:—No history of V. D. *History of onset*: Started 1½ months ago with a lump in the left poplitial fossa. One month ago he developed a swelling over the sternum which is painful 10 days ago, he noticed other swellings. Patient gives history of occasional bleeding per rectum. General condition: Fair. *C. V. S. Respy* N. A. D. Abdomen-Liver & spleen N. P. Testis - Normal.

Local condition:—The swellings mentioned above were found in the following situations: (1) Sternum - 3" x 3" hard painful lump fixed to the bone - surface nodular (2) Diffuse irregular lump in the left poplitial region 3½" x 3" in the plane of the muscles - knee joint free. (3) A small tender nodule on the outer one-third of the clavicle - free mobile. (4) Hard lump of the size of a lime in the left gluteal fold - not painful - deeply situated - free mobile. (5) Small marble-like swelling near the posterior superior iliac spine (right) freely mobile. (6) Multiple small hard nodules in the 10th and 11th intercostal space 3" lateral to the spine. (7) Two nodular swelling in the middle of the right upper arm - situated in the biceps and moving up and down. (8) A conical swelling (soft) near the left frontal eminence.

Investigations:—(1) Urine - No sugar or albumin. B. P. 90/60. (2) Motion - No ova or cyst. Hb. 80%.

Rectal examination:—Prostate is firm in consistency Median groove not obliterated. No growth in rectum. Blood calcium 9.3 mgms. Cholesterol 91 mgms. Serum Alkaline Phosphatase 5 units. K/WR - Negative.

X-ray skull and thigh bones:—Area of rarefaction seen, Limb bones - No bony lesion. **Right humerus**:—Diffuse area of rarefaction upper end. X-ray Lungs - Suggestive of multiple secondaries. Sigmoidoscopy—Nil abnormal.
from upper arm (right)—20-1-1949—Biopsy Neurofibroma showing sarcomatous change—A number of cells resembling vascular spaces are seen This case offered a number of possibilities for diagnosis:—(1) Multiple melanoma. (2) Cysticercosis—Patient does not take hence this was ruled out. (3) Neurofibroma. (4) Secondary, metastatic deposits—Presumably the original neurofibroma was in the poplitial region which became malignant and gave rise to secondaries in other situations—two are over the sternum definitely being malignant. This patient left the hospital against medical advice.

Case III:—Maryan—Christian, female, 40 years, Atmitted on 5—1—1949. Discharged on 24—1—1949.

Disease:—Neurogenic Sarcoma (Left thigh).

Complaint:—Painful swelling left buttock since 6 months.

Mode of onset:—Commenced with pain and gradual onset of the swelling which is increasing in size. Pressure on the swelling causes tingling in the sole of the foot.

Local condition:—Globular firm swelling 5" × 4½" in the posterior aspect of the thigh (left) below the gluteal fold. Swelling is tender on pressure. Surface is smooth, margins definite and regular. Skin freely movable. The lump could be moved over the deeper tissues—not arising from the bone. The swelling is firm in consistency. Pressure over the tumour causes tingling and numbness over the heel.

(Other) General condition:—Good. Cardio-vascular system Respiratory system Abdomen NAD. No sensory or motar disturbances in the leg. Reflexes—normal.

Investigations:—Urine—No albumin or sugar. B. P. 120/80. X-ray Femur (left)—No bony lesions X-ray chest—No evidence of secondaries.

Differential diagnosis:—(1) Fibrosarcoma. (2) Neurogenic sarcoma 13-1-49 Under general anaesthesia, the tumour was exposed. It was found to arise from the sheath of the sciatic nerve. The sciatic nerve was carefully detached from the anterior aspect of the tumour and then excised. The tumour was well encapsulated and separated easily from surrounding tissues. The tumour had undergone degeneration and contained altered blood. The wound was drained and sutured.

Pathology report:—Neurofibroma showing sarcomatous change. Wound healed by first intution and patient was discharged on 24—1—1949 and advised post-operative deep x-ray therapy.

Dr. B. H. P. Pai's Unit:

A CASE OF PNEUMONITIS WITH SEROPURULENT PERICARDITIS.

(Presented by Dr. BASHKARAN, M.B.B.S.)

Patient T, aged 33 years, admitted for pain right mammary region, cough with a little expectoration and low grade fever of an irregular nature of 20 day's duration. The pain is constant, of an aching nature and aggravated by cough which is particularly troublesome when the patient lies down and which is productive of a little sputum which is not foul smelling or blood-tinged. No breathlessness till very lately. Appetite sleep etc.—normal. Was admitted 4 months back for irregular fever, not accompanied by cough or chest pain and discharged some days later with normal temperature. During his stay on the last occasion the patient had enlarged liver and spleen with negative Gel and Chopra tests. Spleen puncture smear did not reveal any L. D. bodies or malarial parasite. Skiagram of chest was normal except for a few small spots of medium density in the sternal ends of 3rd, 4th and 5th interspaces. On admission the patient was not dyspnoeic or cyanosed; had clubbing of fingers and pigmentation of the palms. Respiratory system was normal except for an area of bronchial breathing in the right infraclavicular region with a few coarse rales over the right infrascapular area. Pulse rate 80 per minite. Regular and of good volume and force. The left border of the heart was in the midclavicular line and the heart sounds were diminished in intensity in all the areas. No adventitious sounds. Liver was palpable for 2 finger breadths below the costal margin and spleen for 4 fingerbreadths. Both were firm, regular, smooth and with fairly sharp margins with no tenderness. No evidence of free fluid in the peritoneal cavity. Temperature was ranging between normal in the mornings and 100 or 101 in the evenings. Total W. B. C. count 4000/c.mm. with P_{65}% L_{24}% M_{10}% E_1% Spleen puncture L. D. bodies present. Sputum for acidfast bacilli—thrice negative. Concentration method—Also negative. Culture for M. Tuberculosis Put up.

Skiagram chest: Pneumonitis right lung with pericardial effusion The patient steadily became more and more distressed and the effusion was tapped on 4—2—1949. About 8oz. Seropurulent fluid was drawn, Examination of the fluid revealed plenty of pus cells with a very few R. B. Cs. and no acidfast bacilli. Streptococci have been grown in culture and culture for M. Tuberculosis has been put up. Subsequent examination of the patient reveals wellmarked cavernous breathing with leathery rales over the right infraclavicular area and less markedly over the right supraspinous region. Left border of heart 1/2" outside left midclavicular line with very much muffled heart sounds in the mitral and tricuspid area particularly. Because of increasing dyspnea again and very low B. P. (80/50 mm. Hg.) the aspiration was repeated on 9—2—1949 when about 6oz. seropurulent fluid (much less purulent than on 4—2—1949) was drawn. Put on Penicillin I. M. 1,00,000 units b. d. since 9 2 1949. Resting gastric juice showed tubercle bacilli.

Dept. of Pathology:

AUTOPSY OBSERVATIONS ON CARCINOMA OF THE LIVER.

By Dr. M. THANGAVELU.

An analysis of 1,613 autopsies done during a period of 18 years (1931-1948) revealed 81 deaths, *i.e.* 5% were due to cirrhosis. Out of this 15 deaths were due to primary neoplasms of the liver—an incidence of 0.9%. Basu and Vasudevan (1929) published a paper on the incidence of primary carcinoma of liver in South India and drew the attention of the world to the relative frequency of this condition in south India.

Total number of autopsies (1931-1948)	...	1,613.
No. of autopsies on cirrhosis of liver	...	81—5.0%,
do Primary Neoplasms of liver	...	15—0.9%.
Sex incidence—All caaes were males.		
Age incidence:—22 years	...	1 case
30-40 years	...	13 cases
54-55 years	...	1 case
		15 cases

Department of Pathology:

AUTOPSY ON A CASE OF BRONCHIAL CARCINOMA.

(By Dr. M. THANGAVELU).

Name: S, Age: 48. Caste: Hindu. Sex: Male. Date of admission: 29—12—1948. Reference to case: Dr. H. B. Pai. Date of death: 3—1—1949. Time of examination: 4—1—1949.

Clinical diagnosis:—Tumour Lung.

Complaint:—(1) Cough - 6 weeks duration. (2) Breathlessness - 5 days.

History of present illness:—Since six months he has cough which is increasing in intensity: the cough has been unproductive. For the last five or six days he feels breathless. **Physical examination**:—(By Dr. R. Subramaniam). **Laboratory investigations**:—Urine - 1020, albumin - nil, sugar - nil. Sputum - Negative for A. F. B. X-ray chest - Effusion right side with? secondaries on the left side. Faeces - No ova or cyst. 1 and 3—1—49 - Chest was aspirated - blood was aspirated and no fluid.

Autopsy notes:—Body of well-nourished male of about 45 years of age and was opened along one of the right intercostal spaces. The intercostal spaces were very much narrowed, the ribs being in close apposition. The practical and visceral pleura were adherent and almost cartilaginous in consistency aud thickened. The right lung was separated with great difficulty. The peri-cardial cavity was distended and in incising more than a pint of haemorrhagic fluid escaped; the visceral layer of the peri-cardium was studded with nodules. **Respiratory system**:—**Right lung**—The entire lung was involved in a malignant growth and diffusely scattered tumour tissue was seen throughout the lung parenchyma. The lobes were not distinct and the entire lung was firm and whitish areas of neoplasm were seen. The tracheo-bronchial lymph nodes were enlarged and on section showed malignant infiltration. **Left lung**—Spherical whitish secondary nodules were distributed in the parenchyma of the lung, some of the secondaries were located in the subpleural region. **Trachea and bronchus**—Raised, firm, whitish irregular nodules were seen at the bifurcation of the trachea and the main bronchus - Epidermoid Carcinoma? **Heart and Pericardium**:—A number of secondary nodules were seen on the surface of the fibrous pericardium. The epicardium also showed numerous deposits of varying size scattered all over the surface. On section the secondary deposits were seen to be confined to the subepicardial layer and showing little tendency towards infiltration of the myocardium. Spleen—No secondary deposits were seen. Liver—A few small nodules were seen. Kidney—Small secondary deposits wers seen on the cortex.

Autopsy summary:—(1) Carcinoma of the bronchus? (2) Secondary deposits in the lungs. (3) Malignant pericardium with haemorrhagic effusion. (4) Secondary deposits in the liver. (5) Secondary deposits in the kidney. **Microscopic diagnosis**: Adeno-carcinoma of the bronchus.

Department of Pathology:

LYMPHO SARCOMA—ABDOMINAL TYPE.

(By Dr. C. S. V. SUBRAMANIAM.)

Name: K, Age: 6 years. Caste: Hindu Reference to case: Dr. S. T. Achar. Date of admission: 20—1—1949. Date of death: 1—2—1949.

Complaint:—Fever with distension of abdomen and swelling of feet since one month.

History of Present illness:—Insidious onset, fever coming off and on. Loose motion Later a few nodules were felt in the abdomen—Bowels regular now—No vomiting—No cough—Swelling of legs since 4 days No dyspnoea.

Condition on Admission:—Ill-nourished—Anaemic Submandibular and upper cervical glands palpable and matted—pitting edema both legs. **Abdomen:**—Doughy—Irregular nodules felt in the abdomen (? Tabes Mesenterica)—No free fluid—Liver and spleen not palpable. **Respiratory system:**—Evidence of effusion right base. **Cardio-vascular System:**—Nil.

Investigations:—21—1—49 Mantoux done 1 in 1000 23—1—49 Mantoux done negative. 31—1—49 Motions well formed—no ova.

Treatment:—21—1—49 Tapped 6oz. of straw coloured fluid from right side of chest. Mist Cal. Chloride I ss ss T. D s. Vit. B. Tab. 2 x 3 m&m. Vit. C. Tab. 2 x 50 m&m. E. P. (3) one Adumin 5 drops bd. Mist Ferrisulph I 1/3 part.

Autopsy notes:—Body of a female child aged about 6 years, emaciated with generalised enlargement of lymph nodes. The abdomen on palpation presented a number of movable small lumps. The abdominal organs were removed through a midline incision. There was no evidence of any inflammatory exudation or adhesions between the coils of intestine. The small intestine especially the lower part of ileum was thickened and for the palpating finger imparted a feel of worms but not movable in the lumen—the worm—like feeling was due to longitudinal linear thickening of the gut wall. The mesenteric lymph nodes were enlarged, matted and out section of these lymph nodes was pale white, soft and fleshy—suggestive of a sarcomatous growth. The cystic lymph nodes were also enlarged. **Liver:**—A number of yellowish white areas were seen on the surface and felt firm. **Spleen and kidneys:**—Nil abnormal. **Lungs:**—Pale in colour. No palpable or macroscopic evidence of secondary deposits or tuberculous process in the lungs.

Microscopic examination:—Small intestine—Lympho—sarcomatous infiltration of the wall with loss of normal histological details. Liver—Lymphosarcomatous deposits. Lymph node—Lympho—sarcoma.

Dr. C. P. V. Menon's Unit:

BERGER'S AMPUTATION FOR A CASE OF PAROSTEAL SARCOMA UPPER END OF RIGHT HUMERUS.

Patient D, male, 20 years, was admitted on 29th November 1948 for swelling of right extermity of 5 months' duration.

History of present illness:—A fairly hard swelling appeared on the postero lateral aspect of the upper arm about 5 months back, accompanied by pain. No history of injury. The swelling slowly increased and spread to the whole arm and then to the forearm and palm. For the last one month, the boring pain is severe and distrubs his sleep. He is unable to move any part of the upper extremity for the last two months.

Condition on admission:—Pale emaciated individual. P. A. present. No prominent veins in the neck. **Heart:** Haemic murmur present. **Lungs:** N. A. D. Liver and spleen not palpable. Abdomen flat. No free fluid. **Nervous and genito-urinary systems**—N. A. D. **Local condition:**—The whole right upper extremity is enormously swollen and immobile. Even the fingers cannot be moved. Sensations of touch present in certain areas of the fingers and at no other place in the whole hand. The skin is thickened from the axills upto the wrist (lymphatic and venous oedema present). The whole arm is woody to feel and the distal portion is angulated outwards (?pathological fracture). There are nodules of skin infiltrations over the right scapular region.

Laboratory investigations:—B. P. 120/85. Hb. 50%. W. B C. 6,900. R. B. C. 4. 11m Hb. 11.5m&m. P_{66} L_{19} E_{14} M_{1}. X-ray: Osteolytic sarcoma upper end of right humerus with pathological fracture. X-ray lungs: No secondaries. 29—11—48: Operation under regional nerve block supplemented by gas and O_2. Berger's amputation done. Blood transfusion two pints given during operation. 10—12—48: S. R. wound healed by first intention 12—12—48: X-ray lungs—No secondaries. 31—12—48: Patient is going for deep x-ray exposures.

Dr. C. P. V. Menon's Unit:

A CASE OF FIBRO-SARCOMA LEFT MAXILLA.

Patient S, aged 10 years, was admitted on 15th November 1948 for swelling of the left side of the upper jaw of five months' duration

History of present illness:—The present complaint began 5 months back as a small swelling over the left side inside the mouth. This was excised in Headquarters Hospital, Bezwada. Biopsy showed osteoclastoma. The growth recurred a few days after operation. So the patient was sent for deep x-ray therapy to General Hospital.

Condition on admission:—General condition very poor. Anaemic. Patient is toxic and thin M. P. discharge coming from inside the mouth. **Heart:**—Haemic murmur present. **Lungs:**—N. A. D. **Liver and spleen:**—Not palpable. No signs of secondaries in any portion of the body.

Local condition:—There was large irregularly lobulated tumour arising from left maxilla. Profuse discharge present from around it. Firm and tender. Easily bleeding. The growth was protruding outside through the mouth and it was mechanically obstructing the taking of food. The patient had to keep the mouth always open. No sleep due to local pain.

Laboratory investigations:—Urine: No sugar, no albumin, alkaline, 1015. Blood: Hb. 60%; R. B. C. 4.6 million, W. B. C. 11,000. Lungs: No secondaries. 'B' group Blood. X-ray: Antrum free. 22—12—48. Operation under intratracheal anaesthesia—Ferguson's incision. The growth was found to arise from the alveolar margin of the left maxilla. This was completely excised with the whole tumour and wound sutured up. Chemotherapy started. Toilet of the mouth. 30—12—48. S. R. wound healed by first intention.

Venerealogy Department:

A CASE OF TREATMENT RESISTANT SYPHILIS.

V. R. R, aged 30 years, came first to the male Special Department, on 19—8—1943 with secondary stage of syphilis. Indurated chancers on the retracted prepuce and peno-scrotal junction with generalised adenopathy and papular syphilides on the face, trunk and extremities. Blood for Kahn and W. R.—strong positive. He had 3 Mapharside and 2 Bismuth at four or five days interval each and defaulted as his lesions healed. He reported again four months later, *i.e.*, on24—12—1943 with malignant precocious tertiary lesions on the face and buttocks. Anti-syphilitic treatment was started. He had first course of A. S. T. from 9—8—1943 to 30—8—1944 by which time he finished 28 Mapharside and 24 Bismuth. He reported again on 4—12—1944 with unhealed ulceration over the lateral aspect of left knee and his blood for Khan was strong positive on 4—12—1944. He had second course of A. S. T. from 30—9—1944 to 28—3—1945, irregularly, and finished 15 Mapharside and 14 Bismuth. By this time the ulceration over the left knee healed. He came back again on 28—4—1945 for continuation of treatment. His blood for Khan was strongly positive on 28—4—1945 and the third course of A. S. T. was started. He finished 19 Mapharside and 16 Bismuth fairly regularly, from 28—4—1945 to 26—11—1945. He reported again with joint pains, especially more marked on the right dorsum of the hand on 9—1—1946 and his blood for Khan was found to be strongly positive. He had 4 Mapharside and 2 Bismuth and x-ray of the right hand on 21—2—1946 showed 'chronic osteomyelitis right middle metacarpal bone'. L. P. was done. Nothing abnormal was found. On 27—2—1946 he was admitted for pyrexial therapy and had 5 T. A. B. I. V. in stepping up doses. Total duration of fever was 12 hours and discharged to attend as out-patient for A. S. T. The lesions healed up by this time. From 16—3—1946 to 24—8—46 he had 4th course of A. S. T. consisting of 25 Mapharside and 14 Bismuth quite regularly. He reports again on 7—11—1947 with crusted ulceration on the dorsum of the right hand and lateral aspect of the upper part of the right arm, close to the right shoulder, left side of the nape of the neck with a big scar close to the left knee. On 7—11—1948 he was admitted with K. H. and W. H. for Penicillin therapy.

He had 3.8 mega units of Penicillin from 7—11—1947 to 19—11—47, each injection consisting of 40,000 third hourly. On 17—11—1947 the ulceration showed signs of healing and completly healed on 24—11—1947 and discharged to attend as out-patient. He reports again on 22—7—1948 with oval granulamatous ulceration on the dorsal aspect of the prepuce of 15 days duration denying any history of fresh contact. D. G. and D. B. were repeatedly negative, but his blood Khan was positive on 27—2—1948. He had 9 Mapharside and 9 Bismuth, irregularly from 1—3—1948 to 17—7—48, by which time the sore healed up completly. The patient defaulted and reported again five months later i.e., 22—12—1948 with gummatous ulceration over the peno-scrotal junction, of one week's duration. He denied fresh contact. His blood for Kahn was positive, W. R. H. on 22—12—1948. D. G.'s were repeatedly negative. D. Bs. were repeatedly negative. His W. B. C. count was 5,625 per cmm. and D. C. P_{68} L_{22} M_7 E_3. We started him on Penicillin on 26—12—1948 with 20,000 units, third hourly, increased to 50,000 on 27—12—1948 and he is undergoing Penicillin therapy now. Gummatous ulceration is showing signs of healing from 3—1—1949 and he will be getting a total of 6 mega units.

By this time from 19—8—1943 to date he received 100 Mapharside and 79 Bismuth.

Venerealogy Department:

A CASE OF GRANULOMA VENEREUM TREATEL WITH STREATOMYCIN.

G, aged 32, has been attending this department with chronic intractable venereal granuloma of her genetalia since 1942 with no improvement. She reported again on

28—11—1946 with extensive granulomatous ulceration, vulva and perineum. Scraping for D. B. was positive and immature forms were seen. She had 11 Anthiomaline injections from 26—11—1946 to 12—4—1947 irregularly and 36 injections of Anthiomaline from 19—7—47 to 19—3—1948. Urethra was patent, straight sound 15 and 16 could be passed and Hegar's Rectal dilator could be passed. Biopsy on 4—3—1948 showed marked inflammatory changes with cellular infiltration in the dermis with epithelial down growths. Superficial x-ray therapy was started and she had about 15 exposures. She was admitted on 28—7—1948 for acute vomiting and collapse, as she had 2 injections of Anthiomalines as an out-patient. She was revived with glucose and cibazol. On 17—9—1948 she was given Penicillin 20,000, third hourly, as she developed a painful lump in the iliac fossa. Blood picture showed nothing abnormal except marked anaemia. R. B. C. 1.8 millions. Hb. 35%. From 28—11—1946 to 26—8—1948 she had 51 Anthiomaline i.m., ranging from 2 c.c. to 6 c.c. each. On 14—11—1948 she had extensive chronic granulomatous ulceration extending from mons pubis downwards over the labia which was absorbed to anus and peri-anal region involving the anal sphincter. The ulceration is diamond-shaped with a small urethral patent opening. Hegars 13 could be passed, bowels constipated and enemata produced unsatifactory results. She was started on Streptomycin on 16—11—1948 at 6 P.M., 2 gms. 4th hourly and finished at 10 P.M. on 24—11—1948. Total is 10 gms. of Streptomycin. From 19—11—1948 ulceration showed signs of healing and practically healed on 3—12—1948. Patient is able to pass motions herself now.

Department of Pathology:

A CASE OF PULMONARY SUPPURATION SECONDARY TO CYSTICERCOSIS.

Name: M, Age: 57. Caste: Hindu. Sex: Male. Date of admission: 29—11—48. Reference to case: Dr. B. H. P. Pai. Date of death: 28—12—48. Time of examination: 28—12—48.

Clinical diagnosis:—Bronchogenic carcinoma with lung abscess. **Complaint:** Pain right side of the chest. Duration: 3 months. **Previous illness:** Attack of cold and cough—3½ months ago. **Habits:** Non-vegetarian; Alcoholic, smoker. **Present illness:** Consequent upon an attack of cough and cold, patient developed pain in the right side of the chest—dull and of a constant nature, worsening when lying on the right side. At the onset, the sputum was blood-stained and since one month he expectorated foul smelling sputum. He has pain over the right costo-chondral region he has lost weight, lost his appetite and he is constipated. **Conditions on admission:** Fairly nourished, anaemic, clubbing of fingers present. Skin shows multiple nodules all over the body—soft, circular and painless. Lymph nodes palpable on both sides in the inguinal region. **Cardio-vascular system:** Apex beat palpable and visible 5th space, left mid-clavicular line. Sounds—normal. **Respiratory system:** Trachea deviated to the right, both sides of the chest move equally with respiration. Vocal fremitus is diminished over the middle of the right chest. Dull on the right side below 3rd intercostal space. Vocal resonance is decreased over the above area. Diminished air entry over the whole of the right side, bronchial breath sounds with rales are heard anteriorly and posteriorly on the right side. Left side of the chest—nil abnormal. **Abdomen:** Liver is just palpable, not tender not firm. Spleen not palpable. **Laboratory investigation:** Urine: Alkaline, 1030, no albumin, no sugar. Deposit: Epithelial cells. Sputum: No A. F. B., no actinomycotic granules, no tumor cells. Faeces: Ascaris ova positive. Blood: W. R. and Kahn—Negative. X-ray chest: Abscess lung—Right midzone. Oval calcified areas are seen in the subcutaneous tissues over the chest and neck—shadows typical of cysticercosis.

Treatment:—Pot, Iodide grs. x in mist. Heparol. Liver extract. Sulphathiazole. Dewormed with Santonin. Calcium Gluconate *i.v.*

Autopsy notes: A number of subcutaneous nodules were found thoroughout the body, the nodules were soft, oval, discrete and had no relation to the distribution of the lymph nodes in the body.

The thorax was opened through an intercostal incision on the right side. When the skin was incised and reflected, it was noticed that these nodules which had the shape of lymph nodes were cystic, measuring 1-2 c.m. in diameter, containing gelatinish material inside with a white opacity in the centre were found in between the muscle fibres. A portion of the serratus anterior muscle was excised for study.

Right lung: The right lung was extensively adherent to the chest wall and since the separation was arduous, two ribs were dissected out along with the lung. A fairly large portion of the right lung was necrotic and foul smelling pus was found pocketed in the centre of the lung. The cavity was ragged and contained tags of necrotic material in the centre. Section of the lung over the periphery of the necrotic area a number of infected cystic spaces with rough lining membrane were seen. A number of cysts were found distributed throughout the substance of the lung, the cysts were similar to those described under the skeletal muscle involvement. Tracheo-bronchial lymph nodes enlarged, congested and infiltrated with carbon pigments. **Left lung**: looked almost normal but on closer examination revealed similar cysts distributed sub-pleurally as well as deep in the substance of the lung. **Heart**: The sub-epicardial fat was slightly increased and similar cysts were found in the sub-epicardial fat - two were located near the apex and another one over the left auricular appendix. The myocardium appeared free from the cystic infiltration. **Liver**: Enlarged. Section—congested and showed fatty degeneration. A slice was removed for microscopic examination. No cysts were noticed. **Spleen**: No cysts were seen. **Kidney**: Slightly enlarged, capsule stripped easily, the cortex was slightly congested. **Peritoneum and the intestines**: Presented no palpable lesions. **Autopsy diagnosis**: (1) Lung abscess on the right side; (2) Cysticercosis of the lungs, heart and voluntary muscles of the body. The autopsy was partial and hence a satisfactory examination of the alimentary tract and removal of the brain could not be conducted. Microscopical examination of the tissues - Muscle, lung, etc. confirmed the diagnosis of cysticercosis

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Dr. B. H. P. Pai's Unit:

A CASE OF TETRALOGY OF FALLOT

Patient D, aged 12 years, was admitted on 27th October 1948 with a complaint of fever since 4 days. **Previous illness**: Patient used to get fever off and on for a few days and to get breathless on walking. **Habits**: Nil particular. **Family History**: 6 children to the parents. 4 died at different ages. Only one sister alive. **History of present illness**: Fever started 4 days ago. It was not accompanied by rigour or headache. **Laboratory reports**: Urine: Sp. gr. 1020, Alkaline, no albumin, no sugar. Deposits - nil. Blood: Total W. B. C. 17,200/c. mm. Hb. 80%. D C. P54, E6, L38, Blood pressure: 80/40. Faeces: No ova or E. H. X-ray chest: A. P. view - Vessel area wide. Pea shaped heart with congestive lungs. P. A. oblique view - auricle prominent. Aortic impression poor. E. C. G. - Moderate right ventricular preponderance with occasional ventricular extrasystole.

General condition.—Patient is a fairly nourished individual of 12 years age, not anaemic, lips cyanosed, not jaundiced, clubbing of fingers and toes, eyes protruding. Glands - sub-mental, sub-mandibular and upper deep cervical glands palpable. No visible pulsation on the neck or chest. **Cardio-vascular system**: Pulse - Regular 80/min.

Volume and tension good. **Inspiration**: Apex beat not visible. **Palpation**: Apex beat felt in the 6th intercostal space 1/4" lateral to the left mid-clavicular line. There are no thrills. **Percussion**: 3rd rib. Rt. lat. sternal border. Ant. axillary line.

Auscultation:—Mitral area: 1st sound. Heard followed by a systolic murmur which is conducted into axilla. 2nd sound. Heard normal. Soft systolic murmur between mitral and tricuspid areas heard. Pulmonary area: Heard followed by a rough systolic murmur. Aortic: Heard. systolic murmur heard. Conducted upwards into the neck. Tricuspid: Heard. Systolic murmur conducted upwards into the neck.

Respiratory system:—Evidence of congestion both bases. Plenty of moist rales heard. **Alimentary system**: Liver and spleen not palpable. **Treatment**: 22—10—48. Tr. Digitalis m X Mist. Heparol 31—10—48. Mist. Soda Salicylas.

This is a case of Fallot's Tetralogy. Of the four features clinically patent interventricular septal defect, pulmonary stenosis and right ventricular hypertrophy can be made out. The dextraposition of the aorta can be visualised from the x-ray chest. In this case the cyanosis is not so well marked as is to be expected. The boy's sister has a congenital heart lesion, radiologically suggestive of patent interauricular septal defect, but clinically silent with eosinophilic lungs.

The case is presented because of the rare incidence.

From Lt. Col. C. K. Prasada Rao's Unit:

A CASE OF HIGH CERVICAL SPINAL COMPRESSION.

A, aged 45 years, was admitted for pain in the neck with stiffness of six months' duration. **Previous illness**:—Nil particular. **Habits**:—Non-vegetarian. **Family history**:—7th pregnancy was an abortion. **History of present illness**:—Started with pain and stiffness in the neck on the left side and slowly spread to the whole neck and was unable to move her neck. For the last one month she has noticed difficulty in movements of the tongue. There is change of voice *viz.*, hoarsness for the last one week with difficulty in swallowing and nasal regurgitation of fluid. Previous to that she did not have this complaint (*viz.*, regurgitation). No history of fever or cough with expectoration. Amenorrhea since 5 months. At present she does not have nasal regurgitation of fluids. **Urine**:—Aikaline, 1010, No sugar, no albumin. **General condition**:—Patient is an emaciated lady of about 40 years. Not anaemic; not jaundiced. Neck held stiff without any movements. Tenderness present, Small discrete shotty glands felt in the neck, both posterior and anterior cervical lymph glands. No other lymph glands palpable. Teeth dirty. P. A. present. Tongue moist and not coated. **Respiratory & Cardio-vascular systems**:—Nil abnormal. **Central Nervous system**:—Intelligence—good. Memory—good. Speech—slurring present with hoarseness of voice. **Cranial nerve**:—Following positive findings present. 5th Taste—lost on the left half. 10th Hoarseness of the voice present. 11th Sternomastoid weak on the left side. 12th wasting of left half of tongue present. Tongue when protruded is pushed to the left side. **Motor system**: Nil abnormal. **Sensory**: Nil abnormal. **Reflexes**: Knee and ankle jerks exaggerated both sides. Abdominal adsent all four quadrants. Plantar—Flexor on both sides. **Gait**: nomal. **E. N. T.—Report**: Hoarseness of voice. Diplophexia. Lymph nodes plus plus discrete and hard. Paralysis of palat and tongue. Left side and sternomastoid on left. Larynx (Directoscody advised). **Fundus examination**: Somewhat hyperaemic optic discs. Slightly dilated retinal veins. No papilloedema in either eyes. **Investigations**: Urine— alakine, 1010, no sugar, no albumin Blood—W. R. and Kahn—positive. Blood calcium 10.1 mgm.

phosphate 3.57 mgm%. C. S. F.—(1) Under tension 110 drops/min. (2) Total proteins —50 mgm%. Chlorides 700 mgm%. Globulin Nil. Sugar 73 mgm%. Cells — nil. C. S. F. .1 negative Khan. .5 c.c. negative. Lange's test negative. 5/11. X-ray chest nil abnormal. 19/11. X-ray skull—Suggestive of posterior dislocation atlas and fraction odontoid process and condyloid process of mandible left side. X-ray pelvis — Rarefaction of all bones.

From Dr. S. K. Sundaram's Unit:

A CASE OF SUB-ACUTE NECROSIS OF LIVER.

Name S, Age 20, Complaint Jaudice with fever 2 years, Previous illness with dates: Nil particular. Habits: Nil particular. **Family History**: A child was born after the onset of the present illness. It was born with jaundice and died in fourth month after 15 days of fever. **History of present illness**: The patient developed jaundice during the 7th month of her pregnancy, without any fever. This was 2 years ago. Since 10 months, the patient has been getting temperature which is higher in the evenings, since 6 months the patient is having pain in the back and shoulders, Her appetite has been uniformly good. Patient says she is having yellowish vaginal discharge since the onset of the illness. The patient was treated outside with parenteral administration of (1) I. V. Glucose, (2) Vit. B. Complex, (3) Procastinol. She was given digoxin for heart failure which she has been having since. The patient was hospitalised for diagnosis and treatment. She has a palpable liver 2 fingers breadth, not tender. There is clinical and radiological evidence of mitral disease. There was no evidence of cardiac failure. Nil abnormal in other systems. She has been having irregular fever varying from normal to 102° F. Laboratory investigations are as follows: Blood: R. B. C. 3.78 millions W. B. C. 9,100 per c. m. m. D. C. P72, E3, L23, M2, B1. Blood Total protein 7.3 G%. 60%. Alb. 4.9 G., Globulin 2.4 G. Blood Cholesterol 116.2 mgm. Kahn and W. R. negative. Van den bergh on 2—11—48 - biphasic. Icteric Index on 2—11—48 - 52 units. Fragility of R. B. C. - starts at 0.35% saline, complete at 0.25%. 24/11. Hippuric acid test, Benzoic acid excretion test - 1.06 gm. per hour. Urine: 1025. No albumin. Bile salts negative. Bile pigments positive Urobilin plus. Culture B coli grown. Her icteric index has been varying from 27 to 52.

A provisional diagnosis of subacute necrosis of the liver has been made. The case is presented because of the unusual duration of the subacute necrosis and to discuss the probable course and the treatment.

Dr. S. K. Sundaram's Unit:

A CASE OF CYSTIC DISEASE OF BONES?

Patient C, aged 26 years was admitted on 19th October 1948 for pain and swelling in left knee and progressive weakness since 3 months. **Previous illness**: Urethral discharge 6 months ago. Does not give history of sore penis. 15 days fever 6 months ago. **Habits**: Nil particular. **Family history**: Unmarried. Nil special. **History of present illness**: The complaint started with multiple joint pains. The left knee joint was most severely affected. **Laboratory reports**: Urine: Acid sp. gr. 1014. No albumin, no sugar. Blood: W. B. C. 8,400. P38 L58, E2. R. B. C. 2.3 million. Faeces: Anky ova plus. Ascaris ova plus. B. P. 100/50. Kahn negative. Blood

Cn. 9.3 mgm. Serum inorganic phosphorus - 3.28 mgm%. 6/11. Bld calcium 6.9 mgm. Bence Jones proteins not seen. 11/11. Serum acid phosphatase 1.6 unit. 24/11. iv Pyelography done. X-ray awaited. Bone narrow: Normoblastic. No malignant cells.

Present condition:—The patient is a poor nourished, anaemic individual, looking ill aged about 30 by appearance. Patient has a diffuse swelling over the anterior border of both tibia, which are acutely tender. There are diffuse swellings over medial and lateral aspects of both legs, all tender to the touch. There is swelling over the posterior border of the right ulna not tender to the touch. Lower ends of both radii and ulna are thickened. The left knee joint is swollen and tender. Alimentary system Cardio-vascular system Central Nervous system etc. Nil abnormal.

The case is presented because the x-ray appearance and laboratory investigation does not wholly fit with any clinical entity. Bone biopsy is contemplated. The biopsy may throw some light.

Dr. D. K. Sabesan's Unit:

A CASE OF MADURAMYCOSIS OF THE LEFT CALCANEUM.

(Presented by Dr. S. R. MADANAGOPAL NAIDU.)

M, aged 11, was admitted for a swelling on the left heel of one year duration. which started in the left rear half of the sole. This was incised outside somewhere and pus removed. After some time, another swelling appeared on the inner side, which was also incised.

On admission two months ago, it was found that she had a swelling on the left heel with two sinuses on either side of the heel, both discharging pus and fixed to the calcaneum, which was thickened. The movement of the ankle jonit were not restricted. A diagnosis of osteomylities of calcaneum was made and the sinuses curetted, which revealed carious interior with black granules amongst sclerosed bone. The material on pathological report revealed Maduramycosis. There was a discussion as to the line of treatment and conservative treatment was decided upon, amputation being not very desirable at such an young age, if it could be avoided. The curetings were repeated and systemic and local penicillin was given for 21 days. The sinuse are healed up. x-ray shows.

This case is presented as a clinical trial of penicillin and cureting in a case of Maduramycosis of bone.

Lt. Col. D. S. Iyer's Unit:

A CASE OF OSTEOCLASTOMA TREATED BY CURETTING AND BONE GRAFT.

This case is presented to demonstrate one method of treating an osteoclastoma.

The patient M, a lady of 25 years, was admitted with a swelling just below the right knee. Her history was that 9 months ago she had a fall and noted the swelling. (From that time it has been gradually increasing in size.) She has pain of a burning nature, but she has no other disability or any difficulty in walking. On examination, she was found to have a bony swelling in the upper end of the tibia (anterior and lateral aspects) just below the line of the knee joint. The swelling was not tender; consistency uniformly bony. The knee joint was found to be normal. (There was no fluid; no

swellings elsewhere). A diagnosis of osteoclastoma of the upper end of the tibia was made. An x-ray confirmed the clinical diagnosis.

On 14—8—48, under spinal anaesthesia, a flap of a touricuet incision on lateral aspect of leg convex anteriorly was made. The tumor was opened into and all the walls and contents removed except the medial wall which was formed by the medial condyle. Chips were taken from the subart. Margin of the same tibia, put in the cavity after curetting and cautering with mel. and spirit. On removing the touricuet there was profuse bleeding and this was controlled by gauze pressure. 2 pieces of gauze were let in the cavity.

On 16/8 gauze was removed. 26/8 S. R. wound healed x-ray showed bones chips present. There was no extension of the disease.

Present condition:—General condition good. Wound over the upper end of tibia healed, except a small area which is not yet epithelialised. Knee joint no swelling. Movements full and painless.

Department of Pathology:

AUTOPSIES ON SUPPURATIVE CONDITIONS OF THE LUNG.

(By Dr. M. THANGAVELU.)

Since 1931, 1613 autopsies were performed in this department, out of which 466 *i.e.* 28.8% of the deaths were due to diseases of the lungs. The following table shows the relative frequency of the diseases of the lung.

Total No. of deaths due to pulmonary diseases 466.

Disease.	No. of cases.	Percentage.
Pulmonary tuberculosis ...	199	42.7
Non-suppurative pneumonia ...	183	39.2
Suppurative lesions—Lung abscess, Gangrene, Bronchiectasis, Actinomycosis ...	39	8.4
Circulatory disturbances—Primary & Secondary Emphysema Oedema Fibrosis Cystic disease, etc.	28	6.0
Neoplasms (Primary) ...	3	0.6
Miscellaneous—Empyema Pleurisy Embolism Infarction Collapse Bronchitis ...	14	3.0

In this series, 39 cases of suppurative conditions of the lung were met with—an incidence of 8.4%; 34 were in males and 5 in females, the ratio of sex incidence being 71. Statistics from a hospital where the influx of admission is mainly from the male population.

Age incidence: Below 10 years—2 cases, Above 20 years 20-25—4. 26-30—8. 30-35—6. 35-40—3, 21. Above 40 years, 40-45—3. 46-50—3. 50-55—4. 56-60—4, 14. 70-75—2, 2. An incidence 54% is found between the ages of 2nd and 4th decade.

Recently we had a run of autopsies on lung abscessess and gangrene and from the study of these cases, it appears that the deaths are due to late admission into the hospital - at a stage when the resistance of the individual has been completely wrecked

and any assault with our modern therapeutic agents proves to be of no benefit. And when the tissue damage has been massive and where the process has been localised, the indication for surgery is imminent and this fact demands our early recognition of such cases. The following cases illustrate certain morbid anatomical, and therapeutic problems.

I Case, P. M. 4454: A case of acute lung abscess with spontaneous pyo-pneumothorax.

A female child, aged 2, was admitted for fever with rigor and cough of 9 days duration. The child had suffered from frequent attacks of fever, and diarrhoea. On admission, she was having hurried respiration with diminished respiratory movements and hyper-resonance on the right side. A diagnosis of spontaneous pneumothorax was made and the air was released through a needle. The child expired after 24 hours and a partial autopsy was done. The middle lobe of the right lung showed an acute abscess cavity which had worked its way to the surface and burst into the pleural cavity. The abscess was communicating with the bronchus and this accounted for the spontaneous pneumothorax. The right lung was collapsed and the left was deeply congested. The death was due to shock and toxaemia.

II case, P. M. 4466:—A case of lung abscess involving the upper and middle lobes of the right lung.

A female, aged 35, was admitted for fever with cough and foul expectoration of 3 weeks duration. She complained of pain in the right shoulder. Physical examination of the respiratory system revealed diminished air entry and dry hollow breathing over the right apical and mid-zones. A leucocytosis of 18,200/c. mm. with 80% neutrophiles was recorded. The report on the skiagram of the chest was "Massive consolidation of almost the whole of the right lung except for about one inch in the base of right lung with shifting of the mediastinum to the right". The patient died after 6 days and a partial necropsy was done immediately after death. The upper and middle lobes of the right lung were adherent to the parietal pleura and was cystic and fluctuant. A large abscess was found involving the entire upper lobe and also a portion of the middle lobe. The wall was composed of a thin shell of lung parenchyma and the dependant portion of the abscess cavity showed a ragged wall of granulation tissue and gangrenous strands. The liver was enlarged and fatty.

III case, P. M. 4467:—A case of lung abscess of the right lower lobe, the abscess extending into the abdominal cavity to the perinephric space and tracking to the surface of the body through multiple fistulous tracts.

The patient was a male, aged 28, admitted for two sinuses over the back, thought to be tuberculous on admission. He had an abscess over the right loin 3 months ago and it was incised; the wound did not heal. On autopsy the right lower lobe was found to be in a gangrenous condition, the diaphragm had been perforated through and a perinephric abscess was also present. A number of fistulous tracts were seen extending from the pleural cavity and retroperitoneal space to the surface on the back. A perisplenic abscesses was also present and the spleen on section was found to be riddled with a number of abscesses, in the centre of each could be seen a chunk of splenic tissue. Brain presented two abscesses in the frontal cortex one in the parietal lobe on the right side. None of the other organs manifeated any evidence of septic embolic infraction.

Case I illustrates the complications of an acute abscess, where the poor resistance of the baby was responsible for the destructive lesion, leading to an empyema and spontaneous pneumothorax. The second case proves that an abscess in the presence of resistance could get localised, but a localised abscess needs surgical intervention and any amount of modern chemotherapy is futile unless surgical measures supplemented the therapy. The third case proves the evil that follows late admission where neither the medical nor surgical measure could be adopted to effect a cure.