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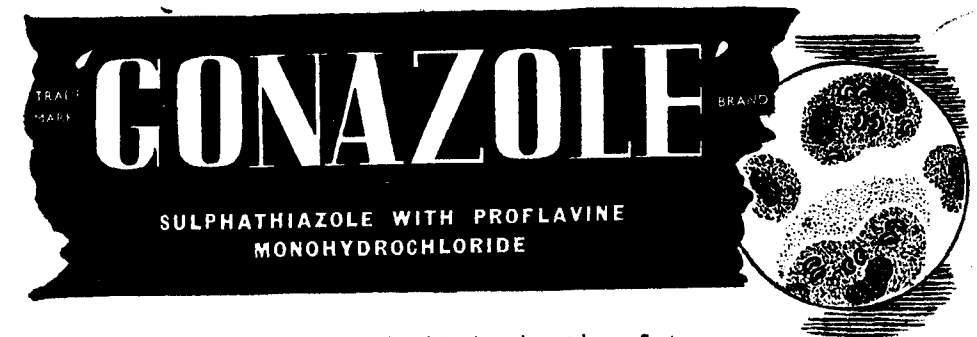
THE MISCELLANY

Managing Editor: Dr. P. A. S. RAGHAVAN

MONTHLY JOURNAL OF THE SOUTH INDIAN BRANCH
OF INDIAN MEDICAL ASSOCIATION

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Announcement

IXth INTERNATIONAL CONGRESS OF INDUSTRIAL MEDICINE

The above Congress is likely to hold its session in England in September 1948. If any member of our Association is likely to be in England about that time, the member can attend the Congress on behalf of the Indian Medical Association. Such members are requested to intimate the General Secretary I.M.A., Calcutta, so that necessary papers of delegation may be issued.

DR. P. A. S. RAGHAVAN,
Hon. Secretary,
South Indian Provincial Branch I. M. A.

CHANGE OF ADDRESS

DR. M. SANJIVI RAO, M.B.B.S., from Negapatnam to Cochin.
DR. A. VISWANATHAN, L.M.P., from Madras to Vengudi, (Conjeevaram).

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Dr. M. DEVAJI RAO of Madras

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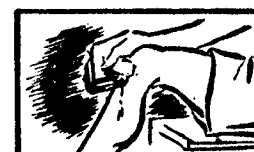


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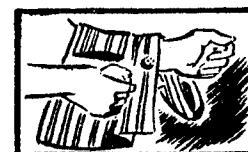
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THE MISCELLANY

JOURNAL OF THE SOUTH INDIAN BRANCH
OF
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[No. 10

OLD TALES RETOLD WITH FRESH COMMENTS

BY

(Lt. Col. P. V. KARAMCHANDANI, M.B., B.S., F.R.C.P., Late I.M.S.
District Medical Officer, Bellary.)

II. Anxiety neurosis

Since the ailment of anxiety neurosis is on the increase I propose dealing with its practical therapeutic aspects in this article. I shall say a few words about the causation and diagnosis first.

Causation :

The principles of causation are simple. These are either mainly of inner origin or mainly of outer origin. Those of inner origin relate to the so called mental conflict i. e. some remote fault in the emotional development. This has to be traced to its source and needs the help of a specialist. The principles of outer origin are what we are concerned with here. They relate to certain instinctive urges which remain in need of satisfaction. If these be not satisfied the result is an inner tension, which is felt in the mental sphere as uneasiness and reflected in the bodily sphere as visceral disturbances. I shall enumerate some common ones so that if the general practitioner after discussing with the patient finds no relief he may think that a consultant may be called in aid.

1. In men the source of uneasiness lies in conditions of work. It may be so unsuitable that it goes against the grain or so monotonous that it gives

much time for rumination. Again there may be a factor of personal relationship involved. For example a boss may be uncongenial or teasing type, or an employer who seems ungrateful for devoted services. Or again it might be in conditions of work which produce a feeling of injustice or lack of prospects after many years of faithful service.

II. In women the sense of dissatisfaction commonly lies in the sphere of affections. Man's love, is of man's life only a thing apart, but it is woman's whole existence. I don't mean factors relating to physical sphere of sexual nature, but of personal character. For example a woman may be unhappy from neglect or I may put it "lack of ability on the part of husband to show affection". A woman patient told me once that a word of affection from her husband was worth more to her than a casket of jewels.

III. Adolescents. Here the difficulties relate to starting out in the world. In other words they expect either too much or too little. For example a rebuff may induce anxiety. In the former case by affecting his self esteem it makes him feel sorry for himself, while in the latter case it diminishes his already low store of self-confidence and introduces nervousness.

IV. In children of school-going age anxiety symptoms occur from difficulties in school. For example it may be relative intellectual incapacity for the work expected, or an uncongenial teacher or again some bullying older boy. Influences at home may have similar effects.

Diagnosis.

The first and foremost point of importance is a careful history of the development of symptoms. Here I would like to stress that three conditions simulate anxiety neurosis and these have to be borne in mind.

I. Schizophrenic psychosis this will be dealt with later.

II. Involutional melancholia.

It is a depression of later life. A state of anxiety in an elderly person, with no previous history of similar symptoms should raise this suspicion. The presence of extreme tension, agitation, insomnia of early waking type, self accusation, are other points.

III. There are cases where proximate cause of anxiety is a severe organic disease. The vague malaise which accompanies it, causes a mental uneasiness in some people and this simulates anxiety neurosis. General overhaul of the system at the hands of a physician easily eliminates it.

Therapy.

Simpler methods are

1. *Suggestion*—This is all important. To be of value it must be of implicit kind. Here the prestige of the general practitioner is the best weapon in his armoury. It may appear a primitive thing, descendent of attitudes held towards with doctors. But I am sure how many, even the most educated when their suggestion is scraped,

specially in times of stress, do not manifest attitudes of superstition belonging to the earlier stages of existence? Is not the bottle of medicine in some cases a hoary chief, an explicit form of suggestion, which even the doctor fails to recognise, and attributes to the bottle what in fact belongs to firm faith?

Other forms of suggestion are verbal in a waking state, or under hypnosis. But their application in psychoneurosis is limited to patients in whom more radical methods, to be enumerated below, are not applicable, either due to lack of insight, or lack of intelligence or lack of time.

2. Reassurance

This method applies to the bulk of general practitioners' patients. But it must be understood that it either makes or marks the results. Thorough overhaul and unhesitating reassurance as against cursory examination and reassurance with reservation, is all that makes difference. Hence I stress that the general practitioner should have sound views on the pathology of visceral disturbances.

3. Confession

Feeling of guilt or feeling of inferiority is an emotion which perhaps haunts these cases more than any others. Guilt may be of an imaginary character, in this respect, that it is not that they have done something which other average individuals have not done, or that they have something which they can help or be ashamed of. Inferiority feeling is born of something which may be act of God, e.g., barrenness in women. These false impressions in respect of themselves are cherished by them for years, which ultimately depress them and become the precursors of anxiety neurosis. A man on the brink of anxiety neurosis from guilt of masturbation was pulled back by simple process of confession and reassurance.

4. Historical illumination.

The basis of this is new angle of vision as to the etiology of symptoms. Routine history taking, with connecting symptoms, development and disturbances, and the illumination which brings to bear a new view point, as to origin of his symptoms, is usually sufficient to cure the symptoms. It may be noted that every coincidence of worrying event and symptoms is not an evidence of causal connection. The symptom may be of physical origin while the coincidence an accident. Perhaps illustration will clear. The case of Military Officer quoted under anxiety neurosis in the last article shows that his symptoms were insomnia etc. While the worrying event was supercession. In this case both the symptom and worrying event were evidences of causal connection and historical illumination cured the symptoms. If however insomnia had emanated from an organic lesion, the coincidence of supercession would have been only an accident and no amount of changed angle of vision could have succeeded.

5. Elucidation of conflicts.

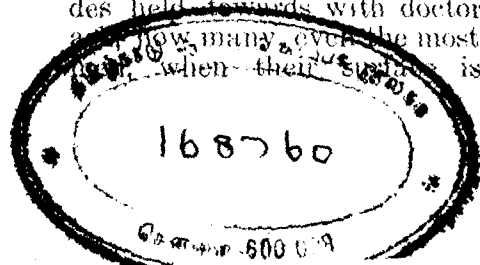
This involves mental analysis. Here those conflicts are implied of which different aspects are conscious or can be readily made so. For example conflict may be between desire and conscience or between ambition and achievement. The patient may be harbouring dislike, hatred or jealousy against another man promoted over him. Although he may be reluctant to admit it, there is constant rumination which creates tension and consequently produces symptoms of which he complains. An appraisal of the personality, often helps in giving clues of his difficulties. The General practitioner has to learn the art of directing his enquiries along the most probable lines. Should he fail because the conflict is not nearly so conscious but deeply repressed, psychoanalysis is indicated at the hands of a consultant.

Mercier has said "for every individual, as for every beam and every rope, there is a breaking strain. Load a beam or a rope with sufficient weight and whatever its strength it will break at last. Subject a person to sufficient stress and however well he may be constituted he will become insane". It all depends upon the factor of "sufficient stress" which varies from individual to individual. Under the same kind of stress one individual may escape with hysteria, another person may go down with anxiety neurosis while a third one may sink into frank schizophrenic insanity.

In the previous article, hysteria and anxiety neurosis were dealt with. In this, the more distressing mental malady viz. Schizophrenia is dealt with. In the concluding portion the causes and applications of early remedies are discussed.

Schizophrenia.

This is a malady of young adult life, although "flight from reality" mechanism can operate even later. Mental derangement serves some purpose i.e. it enables the subject to quit the task for which he is unequal. There is a mental skein. He can't disentangle it himself. He did not produce it consciously. It was produced by his inner forces of which he is unaware. It is for the physician to discover the hidden source of trauma, exhibit this ghost to the patient and encourage him to lay it by facing up to facts of life. This conflict of emotions—the basis of all troubles, can be set right by correct appreciations. These emotions which rule the mind may be frustration, fear, disappointment, dissatisfaction, etc. Occasionally the ghost may be a forgotten event which can be brought out from the hidden archives of brain by complicated process of psychoanalysis. But usually the hidden conflict is such as can be brought to light, by careful enquiry. A general practitioner if he



possesses requisite tact, patience, sympathy and understanding can bring to surface the hidden conflicts.

An Anglo-Indian girl who had been good at school and scored well at the convent got married to a jailer under me. Her relations with her husband became increasingly unhappy. One morning at 4 a.m. she knocked at my door and came to stay in my bungalow. She gave out a long story of ill-treatment at the hands of her husband. She had been brought up and educated in a convent and had taken a good place. After marriage she found that she had not that place in the society, which she had imagined. Having come out of the confined atmosphere of a convent, she discovered she was not the paragon which she had been made to consider herself. Instead of facing up to reality she attributed evil motives to her husband and his relatives and spent more and more time in a world of fantasy and delusions. She imagined a dove was repeatedly cooing and fondly hovering over her head at night to solace her from the persecutions, she was subjected to in several ways. She was finally lodged in the mental hospital at Calicut.

The late world war revealed several cases of mental malaise in lads who when discharged from the army at ages of 21-25 years were at emotional levels of 15 or so, inexperienced and unprepared to face the hard problems of civilian life. This period is admittedly the most stormy period of life. In the army everything was cut and dried for them, decisions were taken for them and there was nothing to worry about except dread of breach of discipline or death.

Mind and body are indivisible and it has to be remembered that relationship between the ego and its environment including body is intricate and intimate. Therefore I say that a true specialist is the general practitioner.

He knows his patient as a man or a woman, his or her social relationship, family history—in fact the knowledge which is prerequisite for success.

Three S's and three F's.

Self, sex and society, are three inborn and primary proclivities which influence actions of individuals. In Napoleon Bonaparte, self was predominant. Consequently he sacrificed Josephine at the altar of ambition (for no fault of hers). A more recent European monarch had sex predominant and he kicked away the crown of an empire for the sake of a woman. Society is herd complex where one's actions are governed by the codes of society. The actions of these men with strong herd complex are governed by the society.

Frustration, fear and fantasy are the three active determining factors which precipitate mental disorders. Perhaps illustrations will clarify.

Frustration.

A young man came under the care of the author for sleeplessness, headaches, indigestion and general weakness. He suffered from great misery. There was no apparent cause. Close history revealed that he had wanted to prosecute studies but demise of his father had forced him to stick and look after the ancestral lands. This was not congenial to his temperament and he had been ruminating over his fate. This had affected his health adversely and started a vicious circle. Frustration—rumination—ill health, still more sense of frustration, still more rumination—increased ill health and so on. Recovery in such cases can be brought about by making the patient realize the true nature of his infirmity, thereby enabling him to stand up and act in a definite practical manner. In this case one practical manner was to let him prosecute studies which luckily was possible. To-day he is in the audit, occupying a place of great res-

ponsibility. The problem for the doctor is to discover the deep seated trauma of which the patient himself is unaware and complains of insomnia, anorexia etc.

Fear.

One Englishman, patient in London, had a great fear of travelling by train. He would hire a taxi—even though he could not afford it and travel by other means, rather than get into a train. Probing his cerebral archives revealed that this trouble had started after an incident when he had felt sick and vomited in the train. His companions had looked on him with askance. This was made bare to him and like magic his phobia disappeared. After that he travelled by trains without fear, and said how foolish he had been.

Fantasy.

This is a very common and interesting condition. Every one must have observed children imagining themselves to be big men, big doctors etc. Fancy captivates their mental life. The child takes his father's stethoscope and fancies he is a doctor or he puts on his father's helmet and imagines he is a colonel. The girl plays with the doll, bathes it, feeds it, pats it to sleep, like a real baby. But although they do all this, they know that they are not real doctors, or colonels and the dolls are not real babies. In other

words they have the correct appreciation of reality and fantasy. It is this appreciation of differentiation which separates sanity from insanity. When the condition develops where the ability to differentiate that reality from fancy is gone, mental hospital becomes the abode. Flight from reality is an avenue of escape from life's responsibilities. The condition can be checked, right education given and correct orientation imparted no sooner such tendency becomes apparent. What a narrow line demarcates sane from insane! This is what I wish to impress on the general practitioner. I shall close this article by quoting Leyland Hensie who says "To many, living and adjusting to the world is a task. When the task becomes too severe many withdraw, some completely, some by way of mental disorder. The introvert young persons are given more and more to building castles in the air. Afraid of their environment they become firmly attached to fancied creations. Fanciful world is a haven—a haven for which they pay with delusions and relative inertia without going through all the trials and tribulations of reality, they who could make no friends, identify themselves with all the people of the world. We talk to a few people, they converse with millions through the simple expediency of hallucinations. We strive and struggle to get a niche in the work-a-day world they become the heroes or the gods by wishing"

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

KELOIDS—*Journal of the Medical Clinics of North America*.—Keloids are dense, fibrous growths developing in mesodermal tissue usually at the site of a scar and characterized histologically by large homogeneous connective tissue fibres with a small proportion of connective tissue cells. Negroes and Mediterranean races are unusually susceptible to their development. While they may arise spontaneously in the skin, they commonly are secondary to damage of the connective tissue as the result of any agent which will cause a rupture of the overlying skin surface. Furnaces and electrodesiccation of the skin are frequently followed by the formation of hypertrophic scars. The young keloid is deeply seated in the skin, firm and rubbery in its consistency and shows a smooth red to pink dome. It may be perfectly circumscribed and confined strictly to the area of the scar or have a few arborizing extensions.

Keloids and hypertrophic scars may be thick enough, particularly on the flexor surfaces of joints, to produce limitation of motion. They are commonly itchy and may produce a sensation of deep burning from pinching of new nerve filaments by the thick connective tissue growth.

It has not been shown that there is any advantage in prophylactic treatment, either before or after operation, for avoidance of keloids in susceptible individuals. Treatment is directed to stopping the growth and bringing about regression as soon as the growth is clinically evident, for treatment of a new lesion is much more successful than the old, hard, fibrous one. In such an old lesion, it is preferable to excise it into if primary skin closure can be obtained. Then if the keloid recurs in the operative site, immediate treatment will usually produce a satisfactory result. If skin grafting is necessary, the strong possibility of keloid formation in the donor sites as well as in the grafted area must be considered.

It has been noted that lesions on the face are more resistant to treatment than those on other body surfaces, and favour-

able results may be longer delayed because more treatment will be necessary.

The usual plan of treatment is to give 250 roentgens measured on the skin at 120 to 140 K. V. with 1 mm. of aluminium filtration at a distance of 20 to 30 cm. This dose is delivered to the entire lesion and at least 1 inch of the surrounding normal skin. It is repeated every three weeks for a total of three doses. If there has not been satisfactory regression in the thickness of the lesion or relief from pruritus and burning, the course is repeated after three months. In the usual case, two such series are necessary. In Negroes, there may be some tanning over the treated area for several months after treatment is completed. This is a temporary phenomenon and the end result shows no change in the ordinary pigmentation of the skin. This amount of protracted treatment is well below the amount the normal skin can tolerate without evidence of any immediate or late permanent damage.

* *

RINGWORM OF THE SCALP—*Journal of the Medical Clinics of North America*.—Tinea capitis is infection of the hair of the scalp produced by various fungi. *Microsporum audouini* is the offending organism in the epidemic form now prevalent in the United States, but ringworm caused by *Microsporum lanosum* is endemic and a small percentage of the cases seen will be caused by it. Both of these fungi produce changes in the hair which cause them to fluoresce, a characteristic apple-green under wood's light, the so-called "black-light" produced by excluding the visible light from a source of ultraviolet light by a heavy nickel glass filter.

The earliest appreciable lesion is a minute, rounded scaly patch upon the hair-bearing scalp, the location being just inside the hair line at the nape of the neck. The base of the lesion is reddened and hyperemic, but the scales are whitish or grayish in colour. The patch slowly increases in diameter but there is no tendency for involution at the centre of the lesion as one sees in the common types of ring-worm

infection on other portions of the body. The involved hair shafts become dry and brittle and, in the course of a few days or weeks, many of these hairs break off, leaving a partially bald area studded with broken hair shafts. A variable degree of itching is present and the excoriation of the lesions may involve the area with secondary infection which may, in extreme cases consist of deep carbuncles with multiple draining sinuses. Rarely is this disease limited to the clinically infected site.

A working diagnosis of tinea capitis can be made by examining the scalp under the Wood's light with the finding of fluorescent hair shafts. Final diagnosis is by culture of the fluorescent hairs and finding of the characteristic fungi.

What cases of tinea capitis should be treated by x-ray?

It is the feeling of many dermatologists—and statistical results have borne out this feeling fairly well—that cases of tinea capitis caused by nonfluorescent organisms, a large variety of large spore fungi, can be cured by local means and resort to roentgen depilation is unnecessary. In addition, the animal transmitted type of microsporum, *Microsporum lanosum*, is usually cured without resort to irradiation. *Microsporum audouini* infections are the most resistant and chronic and it is in these cases that roentgen depilation is frequently necessary.

In an epidemic the new local fungicide, a saturated solution of copper undecylenate in carbowax 1500, will produce many cures although wider use of this solution has tempered the enthusiasm of early reports.

Complete temporary depilation of the scalp by irradiation is the quickest and surest method of cure in the individual case. Depilation of the clinically infected areas in the scalp is not recommended as the disease is always more widespread than is apparent on examination and the so-called "spot" depilation technic has time and time again proved unsatisfactory.

The advantages of x-ray treatment are multiple:

1. In the proper hands with adequate modern equipment the procedure is perfectly harmless and painless to the patient.

By vigilant attention to technic and dosage, the possibility of permanent alopecia can be eliminated.

2. It is a rare case of ringworm of the scalp treated by x-ray that is not cured. The best local drug therapy results to date have been reported in a Hagerstown epidemic where 57 per cent of the cases were cured using 5 per cent salicylanilide in carbowax 1500 or copper undecylenate saturated solution in carbowax 1500.

3. X-ray treatment can be completed at one sitting. The entire procedure, including the examination of the patient, can be carried out by experienced personnel in less than one-half hour.

4. The patient becomes practically noninfectious at the end of the three weeks, when the scalp will be entirely depilated, although some infection will remain for several additional weeks.

In this country, temporary roentgen depilation has been obtained by using the standardized procedure of Adamson and Kienbach and described by Mackee as the "five-point technic." In the Adamson-Kienbach technic, the dose, the treating distance, and the position of the portals upon the scalp are standardized, the same factors being used for every type of scalp. Failures will occur with the very large, quite small and the unusually shaped head. Using open overlapping fields, the low dosage point is at the centre of each field and the high point intermediate between the fields.

Since July 1945 at the Hospital of the University of Pennsylvania, we have used an individualized shielded portal technic with uniform safety and high cure rate. The child's head is not a sphere. The hair-bearing areas of the scalp are usually composed of four to six fairly flat plateaus joined together at rather acute angles. In the most common type, the anterior-superior portion of the head is a broad, flat plateau with an abrupt angulation at the vertex and there is a smaller flat area posterior to the edge of the occipital bone, and from the parieto-occipital sutures to the nape of the neck is another fairly flat plateau. Viewing the child's head from the front, these three midline plateaus

are joined to the flat lateral surface of the hair-bearing scalp by acute angles.

Preliminary red ink lines are drawn to outline the various "flat" surfaces. Each is then treated in turn with careful lead shielding of the surrounding areas. Before the shield is removed at the completion of treatment to any one area, the actual treatment area is outlined in contrasting black ink. All the areas are treated on the same day. Using these shielded portals, the high dosage point is at the centre of the field and the low point at the periphery of the field.

The hair begins to fall out thirteen to sixteen days after irradiation. Depilation is complete in thirty days. New hair growth is not like that seen from a shaved scalp, but rather like the fine growth of hair developing on the infant's scalp. At first, the hair is sparse and fine and each week there is an augmented number of hairs which gradually become thicker until full hair growth is accomplished in six months.

The scalp is quite dry after treatment. The amount of irradiation necessary to destroy temporarily the function of the hair follicle is sufficient to suppress temporarily the sebaceous glands of the scalp, and until full hair growth is accomplished the scalp will be dry. Normal oiliness returns within one or two months after full hair regrowth.

Exceedingly soft irradiation is used 75 K. V. P. The pituitary gland receives approximately 180 roentgen units from the treatment of the entire scalp. The dose in roentgens is very close to the minimal depilation dose, as 80 percent of our dose will not depilate the edges of the field and 60 percent of the dose will produce no alopecia, even in the centre of the field.

In 120 cases, with a six month's follow-up period, 119 cases have been cured without any damage to hair or scalp of the patients treated. In the one remaining case, hair regrowth has been perfectly normal but the infection persists.

Early recognition and management of intestinal strangulation.—J. A. M. A. Feb. 22, '47.—Although improvements in therapy have resulted in a decided reduc-

tion in mortality in simple mechanical obstruction of the small bowel, the mortality in strangulation obstruction is still high. In a recent report by McKittrick and Sarris, 59 per cent of the deaths in their patients with intestinal obstruction occurred in the strangulation group. In the hospitals of the Medical College of Virginia, strangulation of the small bowel has been responsible for more deaths in the year 1941 to 1946 than appendicitis with rupture and peritonitis.

Most authors agree that the most important factor influencing a favorable outcome in strangulation of the small bowel is early surgical intervention. A study of the patients seen by us during the past five years has impressed us with the likelihood that if close attention is paid to the clinical history and to the physical observations early and correct diagnosis of intestinal strangulation is usually possible. In this communication, therefore, we describe the clinical observations which we consider important in distinguishing between mechanical obstruction and strangulating obstruction of the small bowel.

* *

The differentiation of simple versus strangulation obstruction.—In the following discussion we have assumed that the physician, after a careful history and physical examination, has concluded that of the abdominal disorders which might be responsible for the condition of the patient mechanical obstruction of the bowel is the most likely. Briefly stated, the immediate question then is, "Does this patient have a simple or a strangulating obstruction?"

In this review of our experience, we have excluded all cases of strangulation of the small bowel incident to external hernia; 2 cases of strangulation due to intussusception are excluded because the diagnosis was so obvious at the first examination.

Symptoms.—*Pain.*—Pain is the commonest symptom in obstruction of the small bowel. Although it is generally stated that in both types of obstruction the onset is sudden, we are impressed by the dramatic onset of pain in strangulating obstruction; it is likely to be sudden and severe, even violent. In this respect the patient

with strangulation resembles those of other clinical states where the flow of blood to a part is suddenly obstructed (coronary occlusion or embolus to a main artery of any extremity). In simple obstruction the patient may recall that in the earliest hours there had been abrupt, periodic increase and cessation of the pain, but in strangulation the pain is generally continuous without intervals of complete freedom from pain.

Vomiting.—Practically all patients with mechanical obstruction of the small bowel vomit. However, in our series, we are impressed with the incidence of frequent, repeated vomiting by the patients with strangulating obstruction.

The Physical Examination. General Physical Observations.—The patient with strangulation obstruction usually appears extremely ill, while the majority of patients with simple obstruction do not appear particularly ill except, perhaps, during periods of severe cramping pain or late in the disease.

Shock.—If the clinical signs of shock (blood pressure low or falling; rapid weak pulse; peripheral cyanosis; cold sweating extremities; patchy cyanosis of the chest or abdomen) appear in a patient with small bowel obstruction after only a few hours, the obstruction is almost certainly strangulating. Unfortunately the clinical evidences of shock are usually not observed until the blood volume is reduced by at least 25 per cent. Shock is seen too late in strangulation to be of help in differentiating it from other types of bowel obstruction.

The Sign of "Position of Relief"—We have observed that the patient with volvulus usually assumes a particular position in the bed, in which position they state they are free of pain than in other positions. It is probably that this "position of relief" reduces traction on the mesentery, thus giving partial relief from the constant pain. We have therefore designated this position the "position of relief". As far as we are aware this sign has not previously been described in connection with the differentiation of strangulation, especially volvulus, from other forms of obstruction.

This "position of relief" has been seen only in obstruction due to strangulation of the bowel. It was noted in all but 2 of our patients in the strangulation group. Practically all patients with simple obstruction of the small bowel appear to be comfortable in the supine position and do not complain when they are moved from this position. Patients with strangulation obstruction generally lie in a "position of relief". This position may be on one or the other side. One patient (W. B.) experienced some relief only while sitting upright, inclining forward. If patients with a strangulation obstruction are moved from the "position of relief" they complain more severely of their abdominal pain. It is a simple matter during the course of an abdominal examination of a patient suspected of strangulation of the small bowel to have the patient assume the position most comfortable for him and then to move him into other positions and ascertain if there is accentuation of the pain in these other positions.

If the patient states he is only relatively free of pain in one certain position (the position he will assume for relief) we believe this fact is highly suggestive of strangulation of the bowel.

As noted by McKittrick, some patients with strangulation complain of pain in the back. In those who show a positive sign of "position of relief" there is apt to be an increase in dorsal pain when they are shifted into other positions.

The abdominal examination in obstruction of the small bowel.—Probably in no other clinical situation is a careful physical examination so important as when the physician must decide whether a patient has simple or strangulating obstruction of the small bowel. Only after assembling information gained by inspection, palpation, percussion and auscultation of the abdomen can one properly decide which type of obstruction is present, but we believe, as does Wangenstein, that the experienced observer can distinguish between simple mechanical obstruction and that of strangulation in which the blood supply to the obstructing loop is impaired.

Inspection.—We have not found any significant difference in the general appearance of the abdomen in the two types of

obstruction. In 10 of our 11 patients with strangulation there was obvious distention is often seen in patients with simple obstruction. We do not consider this observation helpful.

In most cases of intestinal strangulation the patients, when seen early, do not have sufficient spasm of the abdominal muscles to interfere with respiratory movements.

Palpation—As Wangensteen has pointed out when the venous flow to a portion of the obstructed bowel is interfered with "the gut becomes infarcted and a serosanguineous fluid escapes into the peritoneum causing the latter to become sensitive." Abdominal tenderness is therefore present in most patients with strangulation. In fact, tenderness was present in all 15 patients of our group, and in some the tenderness was associated with local or generalized muscular spasm. Rebound tenderness was elicited in certain patients with intestinal strangulation. In 4 patients a mass was palpated.

Such tenderness is not found in simple obstruction of the bowel. Tenderness and muscular spasm usually mean strangulation. The finding of a palpable mass adds further support to this diagnosis.

Rectal and vaginal examinations should be made in all patients with intestinal obstruction because these examinations sometimes give valuable information. In 2 of our cases of strangulation the abdominal mass could only be palpated by rectal or vaginal examination.

Auscultation—If the physician will auscultate carefully all patients with intestinal colic we believe he will, with the experience thus gained, be able to distinguish between the sounds heard in simple and strangulation obstruction. Prolonged observation is often necessary.

It is difficult to describe the difference between the sounds heard with the two types of obstruction. Early in strangulation sounds may still be present, but we believe that they are (1) heard less frequently and (2) are of somewhat lower tone and pitch than in simple obstruction. The intervals between sounds may be relatively long (up to ten or fifteen minutes), and the duration is usually quite short. As time goes on the intervals of silence lengthen, until finally sounds no longer are heard.

Occasionally the abdomen may seem silent even when auscultated early in strangulation. The examiner should then resort to longer periods of auscultation, even up to ten or fifteen minutes. When the other observations point to mechanical intestinal obstruction infrequent, low pitched sounds strongly suggest strangulation.

Percussion—The observations by percussion are not of significant difference in simple and strangulating obstruction until too late to affect the final outcome. Patients with late intestinal strangulation show free fluid in the peritoneal cavity.

Laboratory Data—We agree with McKittrick and Sarris that ordinarily the leukocyte count is not helpful in differentiating simple and strangulation obstruction. We consider their view that a rising leukocyte count is suggestive of intestinal strangulation to be sound. If the patient is seen early in the course of the attack, one will generally find a higher leukocyte count in strangulating than in simple obstruction. A pulse rate above 100 in the early hours generally indicates intestinal strangulation rather than simple obstruction, but a review of our own cases of strangulation shows that the pulse rate was below 100 in 6 cases. Since 5 of the 6 terminated fatally it would appear that the pulse rate is not an especially helpful diagnostic or prognostic sign.

Roentgen ray examination is important in establishing the diagnosis of obstruction of the small bowel but does not appear to be especially helpful in differentiating between simple and strangulating obstruction. The roentgenologic observations were indicative of small bowel obstruction in all our strangulated cases, in 1 as early as four hours after the onset of pain.

The Management of Intestinal Strangulation—All patients with intestinal strangulation are apt to develop clinical shock. We believe that shock in this group is a result of serious reduction in the volume of circulating blood. Transfusion of whole blood is therefore mandatory before and during surgical intervention. There is evidence that from 1500 to 2000 cc. of whole blood will be required to restore to normal the blood volume in this group of patients.

The restoration of blood volume should be rapid. While the blood is being administered a Levine tube is inserted and the stomach emptied by suction drainage. If there is clinical evidence of dehydration, isotonic solution of sodium chloride may be administered during this period.

Surgical operation should be delayed only for the proper treatment of shock, as delay beyond four to six hours after the onset of intestinal strangulation invites disaster. Strangulation experiments in the dog indicate that as early as four hours after the establishment of strangulation, as much as a 25 per cent loss of blood may occur. Speed in bringing the patient to operation is therefore imperative.

Our choice of anesthesia in patients not in shock is endotracheal ether combined with intercostal block. For patients in shock, we find intercostal block anesthesia with local infiltration combined with small doses of intravenous pentothal sodium useful and relatively safe. In our experience spinal anesthesia is especially hazardous in patients with strangulating obstruction. In an earlier survey in this hospital, 1 patient with volvulus promptly succumbed after the administration of 100 mg. of procaine hydrochloride intrathecally. Another patient died of shock on the operating table even though only local infiltration and intercostal block anesthesia was used.

After the strangulated loop has been isolated from the rest of the abdominal contents, care must be exercised to determine whether or not it is viable. Should resection be required, anastomosis may be performed either by the closed or open method.

A word might be in order about the significance of hemorrhagic peritoneal fluid. We agree with Wangensteen that it "is observed so rarely in simple obstruction that its mere presence is indicative that search should be made for strangulated bowel". In 1 of our cases the strangulated loop might easily have been missed if a diligent search had not been carried out because of the presence of slight hemorrhagic fluid. One patient in this series had been operated on in another hospital, where a normal appendix had been removed in spite of the presence of hemorrhagic fluid. Some hours later he was referred to

Dr. Herbert Lee, who found a loop of strangulated bowel.

The Lethal Factors in Intestinal Strangulation—Of all the factors responsible for the fatal outcome in intestinal strangulation, shock and peritonitis are certainly the most important. It will be seen from table 1 that none of the 8 patients who showed signs of clinical shock when first seen recovered from the surgical procedure even though in 2 cases the operation was performed within approximately six hours after the onset of symptoms. One patient survived the surgical intervention but succumbed to one of the sequel of shock—late anuria (seventh day).

When intestinal strangulation is complete and the surgical operation is delayed many hours, if the patient does not die from shock the chance of peritonitis is considerable.

Shock and peritonitis in acute strangulation of the small bowel are usually due, in the final analysis, to avoidable delay in surgical intervention. Early diagnosis is the responsibility of the medical practitioner, as well as the surgeon. When as much attention is given to the problem of strangulation of the bowel as has been devoted to acute appendicitis diagnosis will be made earlier and the mortality will decrease.

In the event, early differentiation of simple and strangulation obstruction of the bowel cannot be made the recommendation and treatment outlined by McKittrick and Sarris should be followed; i. e. surgical operation on all patients with obstruction examined within twenty-four hours of onset of symptoms. If this is done, relatively few cases of strangulation will be missed. If patient has had true strangulation of the small bowel for more than twenty-four hours the lethal factors operate with such devastating finality that there is little chance of successful outcome even with prompt surgical intervention.

Conclusion—If the character of onset of the attack, the severity and constancy of pain, the presence of tenderness and of spasm, the character of intestinal sounds and the position assumed by the patient are carefully considered, the differential diagnosis of strangulating and simple obstruction of the small bowel can be made

early. Early diagnosis and early surgical operation are essential if the present high mortality of strangulation of the small bowel is to be reduced to a reasonable level.

Abstract of Discussion.

Dr. Leland S. McKittrick, Boston: The diagnosis of acute small bowel obstruction in its early stages is probably one of the really difficult diagnoses to make and one which is missed early about as often as that in any condition that is seen. Dr. Evans stressed the importance of early diagnosis. You and I, who do not see quite as many of these patients as Dr. Evans does, are not going to be too smart in making an accurate differential diagnosis in the early stages of obstruction. Therefore, if we can make a diagnosis of acute obstruction of the small bowel in the first twenty-four hours of the disease then that patient should promptly be operated on with the expectation that he will do well whether he has a simple or a strangulation obstruction.

In our cases at the Massachusetts General Hospital patients who were operated on within eighteen to twenty-four hours of the onset of symptoms all got well, whether they had a segment of bowel to be resected or whether the strangulation was so early that resection was not indicated. Of those who entered the hospital within the first twenty-four hours of onset and were operated on during the second twenty-four hours, 25 per cent died. After twenty-four hours have elapsed following the onset of symptoms, then the greatest of care must be exercised in attempting to make this differential diagnosis, because if the patient does have a strangulation obstruction and operative treatment is further delayed then that patient has just that much less chance to live. On the other hand, if the patient has a simple obstruction, if vomiting has been profuse and the patient is badly depleted, too early surgical intervention without adequate restitution of fluids will result in a mortality rate which for that simple obstruction, will be excessive. Any corrective operation on the badly distended patient in a late stage may well be fatal. Therefore in certain late cases we may have to ignore possible intestinal strangulation and treat them on a basis of

simple obstruction in order to save those patients whose bowel is viable, realizing that at this late stage death will probably result if strangulation is present regardless of the treatment instituted. Sudden onset of pain is the outstanding symptom of acute small bowel obstruction. The early scout film is the greatest single confirmatory evidence which we have. However, the interpretation of that scout film is difficult.

Dr. Everett L. Evans, Richmond, Va.: My feeling is exactly that which has been stated by Dr. McKittrick; that is, the general management of all bowel obstruction, if seen early. Our chairman's address brought out again the fact that with the advances of physiology we tend to remove our interest more and more from anatomic problems; we tend also to ignore the true surgical problem and at times worry too much about equilibration of the patient with fluid before surgical operation. I should say, however, that we must be slow to decry any effort to minimize the importance of the work that has been done in this field, especially by Dr. Wangenstein and his group. We should add that in patients with obstruction of the small bowel who are seen early, whether or not one is certain of strangulation, it is becoming the experience of more and more groups that early surgical intervention is essentially giving better results. We see each year about 50 to 55 patients with simple obstruction of the bowel in our hospital groups, and the resident staffs are being encouraged to follow what has been outlined so well here by Dr. McKittrick and in his published papers, that the best procedure is early surgical operation. It doesn't take long to administer proper amounts of fluid in those patients with simple obstruction, especially when they are seen early. Surgeons cannot do much about this problem unless the general practitioner or internist who sees most of these patients in the early hours attempts to diagnose early obstruction and gets them to the hospital in time. Unfortunately, in our experience, even the loss of, say, six to eight hours has been too great and we have had fatal issue when that amount of time has been lost. Early diagnosis, therefore, and early surgical intervention in obstruction is in our opinion important.

April 1948]

ASSOCIATION NOTES

MADRAS BRANCH

President: Dr. K. C. Nambiar.
Vice-Presidents: Dr. K. Narayana Murthy
Dr. D. V. Venkappa
Secretaries: Dr. K. L. Narayana Rao
Dr. K. Rama Rao
Treasurer: Dr. M. R. Bail

At the General Body meeting of the Madras Branch of the I. M. A. held on Monday the 5th April, a Reception committee was formed to conduct the Third South Indian Provincial Medical Conference at Madras during October 1948.

There will be a Scientific Section and also a Medical Exhibition during the time of the Conference.

The following office bearers were elected for the Reception Committee:—

Chairman: Dr. K. C. Nambiar.
Vice-Chairman: Dr. D. V. Venkappa.
Dr. K. Narayana-murthy
General Secretary: Dr. K. L. Narayana Rao
Joint Secretary: Dr. A. M. Siva Raman

Treasurer: Dr. M. R. Bail
Secretary: Scientific Section Dr. P. T. Raghavachary
" Exhibition Dr. R. Sankaran
" Reception Dr. K. Rama Rao
" Volunteers & Major N.
Transport. } Gangadharan
" Entertainment Dr. K. V. Swamy

The following Executive Committee members were also elected:—

Dr. Appel Richard
" V. N. Chandrasekaran
" R. Krishnaswamy
" P. Natesan
" C. Rama Rao
" M. A. Nair
" C. Krishnaswamy
" (Miss) E. L. Robeiro
" S. K. Sundaram
" P. S. Srinivasan

RAMNAD BRANCH

President: Lt. Col. M. A. Parthasarathy
Vice-President: Dr. T. S. Shetty
Hony. Secretary & Treasurer: Dr. S. Sundaresan
Asst. Secretary: Dr. M. Srinivasalu

A monthly meeting of the above branch was held on Saturday the 3rd April 1948 at 5 p. m. in the S. A. Hospital, Kanadukathan under the presidentship of Lt. Col. M. A. Parthasarathy F. R. C. S., Dist. Medical Officer, Ramnad.

12 members were present.

After Tea, the meeting commenced, Lt. Col. M. A. Parthasarathy presiding.

The minutes of the last meeting were read and adopted. The President introduced the guest Lt. Col. R. K. Chettur, Dist. Medical Officer, Trichinopoly to the members.

Lt. Col. Chettur gave an interesting lecture on 'Surgery in the treatment of Liver Abscesses'.

With a vote of thanks to the chief guest and the President, the meeting came to a close.

SOUTH INDIAN STATES AND THE I. M. A.

The Indian States south of Madras, except Pudukottah and three Independent Medical Practitioners Associations in the Mysore State, had not joined the Indian Medical Association till now. Attempts by Lt. Col. T. S. Shastri I.M.S. (Retd.) and Dr. T. S. Tirumurthy, the President of the South Indian Provincial Branch of the I.M.A., to convert the State Medical Associations of Mysore, Cochin and Travancore, into branches of the I.M.A. had not succeeded due to one reason or other. Now with the attainment of Independence and the accession of these three States to the Indian Union, a fresh attempt to bring the three State Medical Associations into the I.M.A. was now undertaken with the help of Lt. Col. Amirchand the President of the Indian Medical Association, who was specially requested to undertake a tour of the Southern States.

Lt. Col. Amirchand arrived in Madras on the morning of 4th, May '48, and left the same evening for Cochin with Lt. Col. T. S. Shastri and the undersigned. Due to the kind efforts and influence of Col. Shastri we were treated as State Guests, met at the station by the Acting Chief Medical Officer, Dr. Ittoop, Dr. I. A. Simon and Dr. S. S. Rao, and we were lodged in the State Guest House. In the evening most of the medical men in the State met us at a 'Tea Party' after which, Dr. I. A. Simon, the senior-most medico of the place welcomed us to the State. Col. Amirchand and Col. Shastri spoke on the need and utility of all medical associations in the country to integrate so that the voice and opinions of the organised profession could prevail with the powers that be. Dr. Raghavan explained the rules and regulations of the I.M.A. and the procedure of becoming a branch. There was unanimous support for the merger and it was

resolved to call for a regular general body meeting to do the needful.

Earlier in the evening we met the Hon. Mr. Lonappan, the Minister for Public Health, who not only approved the idea but even said that in that event, his Government would favourably consider the question of paying travelling allowance to his medical officers who might attend conferences etc.

On the 6th noon, we flew to Trivandrum and we were fortunate to have the company in the plane, of Hon. Mr. C. Kesavan, the Minister for Public Health of Travancore, with whom we discussed the merger of the State Medical Association with the I.M.A. He was not only in full agreement with the idea but was only surprised it had not taken place earlier.

At Trivandrum also we were State Guests and in the evening of the 6th addressed the members of the profession in the State under the presidency of Dr. S. John, the Chief Medical Officer of the State Services. The Hon. Mr. C. Kesavan, the Public Health Minister who attended the meeting, addressing the gathering said that in these days of integration when problems like labour, food, and development had to be considered on an All-India basis at All-India Conferences, it was essential that all medical men should be in an All-India Association, deliberate, keep abreast of the times and advice the government on matters of medical and public health. The members present agreed to join the I.M.A. after formally meeting in general body and doing the needful.

Next morning, the Prime Minister, the Hon. P. Thanu Pillai, kindly interviewed us and exchanged views on various matters. He gave us whole-hearted approval for the merger and blessed our mission.

April 1948]

SOUTH INDIAN STATES AND THE I. M. A.

17

On the 7th noon we left by plane for Bangalore where we were met at the aerodrome by Dr. B. N. Balakrishna Rao and Dr. Krishnamurthy and stayed as the guests of Dr. B. K. Narayana Rao, Rtd. Senior Surgeon, Mysore State. On the 8th evening the members of the Bangalore branch of the I.M.A. met us at a party. Col. Amirchand and Col. Shastri appealed to the members to help the refugee doctors in their distress. A sum of Rs. 210/- was collected on the spot.

On the 9th we met the Hon. Mohamed Shariff the Minister for Public Health who heartily approved the idea of having an All-India medical association of which the various associations should be branches. In the evening the State Medical Association met us at a 'Tea Party' in the Association buildings. At the meeting held later, presided

over by Dr. B. K. Narayana Rao, Col. Amirchand and Col. Shastri stressed the need for the Independent and State Medical Associations to merge into one and become a branch of the I.M.A. and thus be connected with the World Medical Association of which the I.M.A. was a component part. Dr. S. Subba Rao, Rtd. Senior Surgeon and all others present approved of the idea and promised to do the needful at the next general body meeting.

There are over 200 doctors in Cochin State, over 300 in Travancore and over 500 in the Mysore State and when all these come into the I.M.A. it would be of mutual advantage.

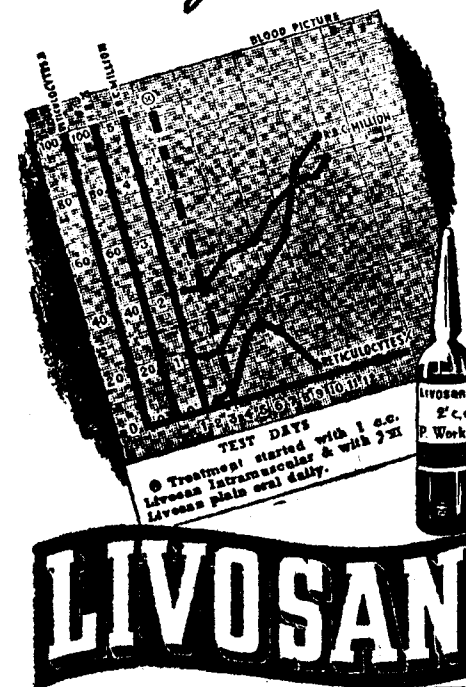
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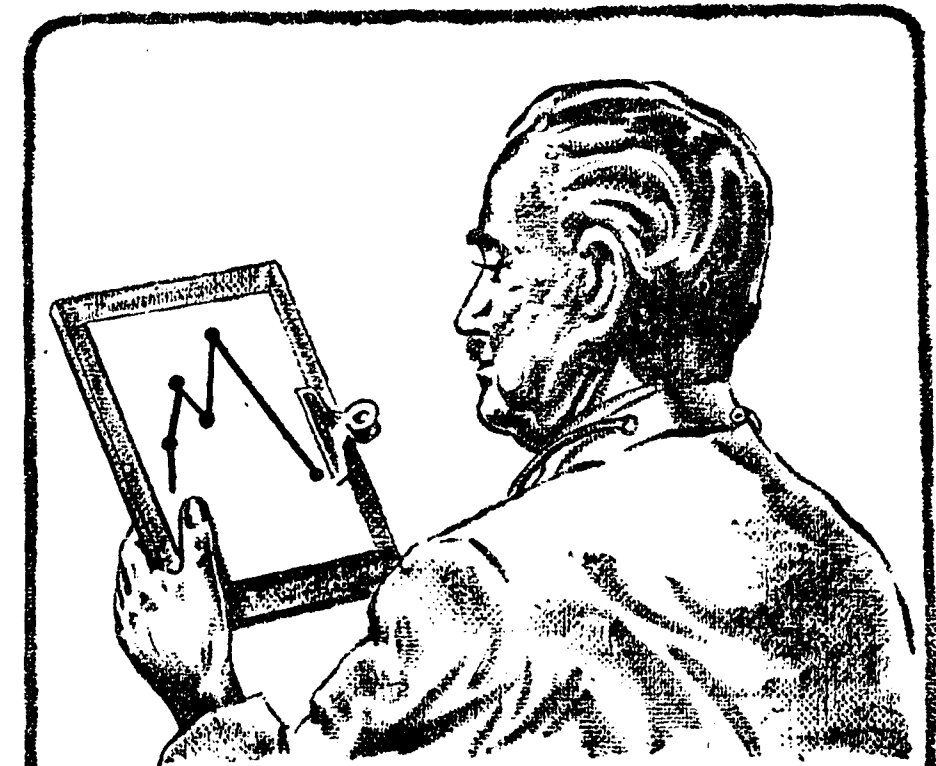
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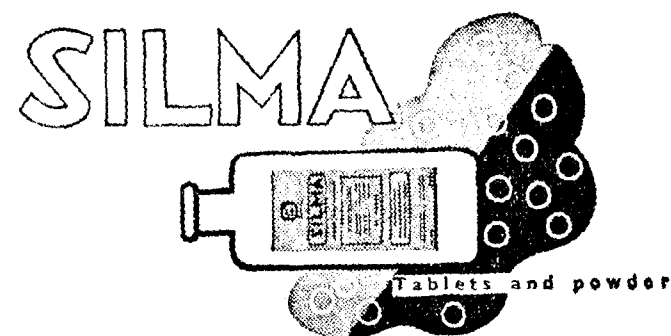
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"I have known you so long, doctor," said the patient at the end of the treatment. "I do not want to insult you by paying your bill. But, I have arranged a descent legacy for you in my will."

"That is very kind," the doctor replied. "By the way, let me see that prescription again. There is a slight alteration I would like to make in it."

"Doctor" came a phone call, "my son has swallowed my fountain pen."

"I'll come immediately," replied the doctor. "what are you doing in meantime?"

"Am using a pencil" came the startling reply.

John (visiting Mac in hospital) "I say, Mac, your nurse looks jolly pretty."

Mac: "Does she?"

John: "My God, Mac, I had no idea you were as ill as that."

A patient was seen standing in a tub with water with a medicine bottle and ounce glass in his hands.

"What are you doing there?" asked his angry wife.

"The doctor has asked me to take this medicine three times a day in water."

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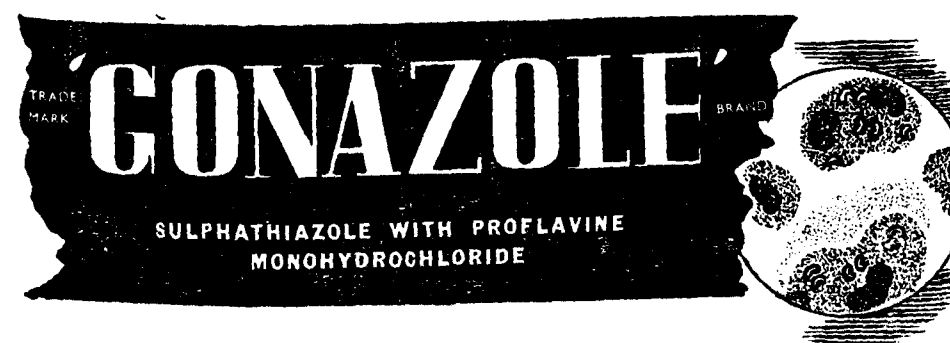
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MONTHLY JOURNAL OF THE SOUTH INDIAN BRANCH
OF INDIAN MEDICAL ASSOCIATION



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MAY 1948

No. 11

The Third South Indian Provincial Medical Conference-1948

INDIAN MEDICAL ASSOCIATION

SCIENTIFIC SECTION

"SRINIVAS"
No. 80, T. P. Koil Street,
Triplicane, Madras.
Dated 15th May 1948.

Chairman: Dr. K. C. Nambiar, F.R.C.S.
Secretary Scientific Section: Dr. P. T. Raghavachary, M.B.B.S.
Scientific Committee: Dr. D. Govinda Reddy, M.D.
Dr. K. S. Sanjivi, M.D.
Dr. S. K. Sundaram, M.D.
Dr. B. M. Sundaravadanan, F.R.C.S.
Dr. R. K. K. Thampan, F.R.C.S. (E), M.R.C.O.G.

Dear Doctor,

It is resolved to hold the 3rd Annual Conference of the South Indian Provincial Medical Association on 22nd, 23rd and 24th October 1948 at the Madras Medical College.

The Scientific Section will consist of four sessions two of which have been set apart for symposia, one on "Chest Pain" and another on "Disorders of Micturition". Physicians, Surgeons, Pathologists, Radiologists and specialists in Venereal diseases, and in Gynaecological disorders will deal with the various aspects of the subjects of the symposia. This will be followed by discussions by members. The remaining two sessions of about two and a half hours each are allotted for presentation of papers, of interest to the general practitioners, which any member may wish to read at the meeting.

Kindly let me know before the end of June 1948 if you would make it convenient to read a paper on a subject in which you are interested.

I shall be obliged if you will inform me of the subject you choose for your paper, your name, address etc. and send it on to me before the 30th of June 1948.

Yours sincerely,

(Sd) P. T. RAGHAVACHARY,
Secretary, Scientific Section.

I. M. A.

Extract of letter No. 1517 (15)-47-48 dated 20th May 1948 of the Central Head Quarters to all provincial Branches:—for information of members of the Indian Medical Association.

All members of the Indian Medical Association are requested to inform the Head Quarters of the Indian Medical Association whenever they intend going abroad giving details of their date of departure, addresses abroad and probable date of return to India, so as to enable the Head Quarters to arrange for contacts with foreign associations or to depute such members as representatives of the I.M.A. whenever necessary.

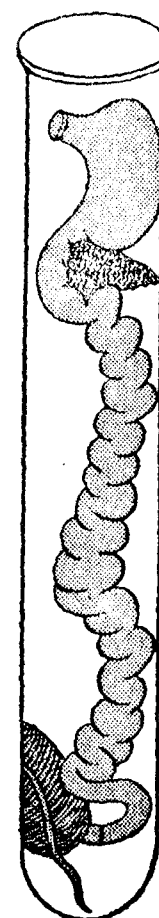
Hon'y. Secretary, I.M.A.,

South Indian Provincial Branch.

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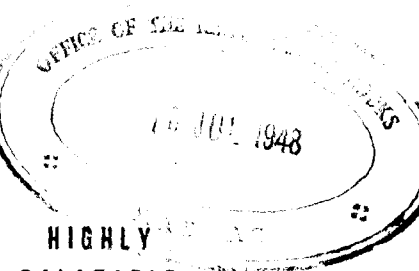
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OF

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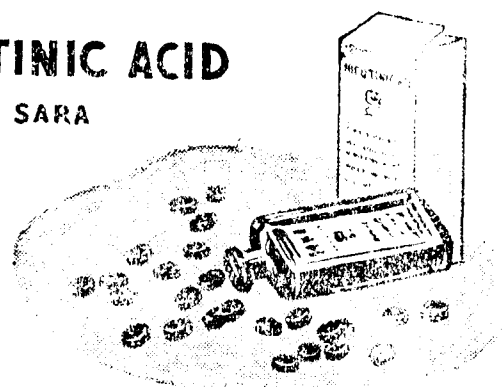
VOL. XIV]

MAY 1948

[No. 11

NICOTINIC ACID

SARA



Nicotinic Acid Sara is a white odourless crystalline powder, melting between 234—237°C. It is non-hygroscopic and one gram dissolves in 60cc. of water at ordinary temperatures. It is stable in the dry state.

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DOSAGE: Although optimal dosage varies according to the deficiency of the vitamin, oral administration of 500 mgms., in 10 doses of 50 mgms. each is safe and effective for the average patient with pellagra. Administration of 50 mgms., at one-hour intervals ten times a day is more effective than a single large dose.

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DISEASES OF THE PROSTATE GLAND AND THEIR TREATMENT

BY

Major P. GOVINDA RAU, M.B.B.S., F.R.C.S. (E)

In the whole field of urology, diseases of the prostate are of special interest to the general practitioner, as the diagnosis of many affections of the prostate is within reach of the facilities available to him and treatment of some cases and alleviation of symptoms in other cases are also within his domain.

The prostate gland is the most important of the male accessory reproductive glands. It is a musculo-glandular organ lying at the neck of the bladder and enclosing within its structure the prostatic portion of the urethra and the ejaculatory ducts. Diseases of the prostate are fairly common, from the acute prostatitis both specific and nonspecific occurring in the young, to the benign and malignant enlargements of the prostate in the adult and the aged.

Anatomy and Physiology of the prostate—The prostate is the size of an English walnut and weighs on an average about 4½ drachms. Its measurements are on an average 1¼" in length, 1" anteroposteriorly and 1½" transversely. The gland consists of five lobes—two lateral, a middle and an anterior and a posterior. There are two accessory structures (1) a group of tubules lying just under the mucosa at the bladder orifice and (2) the so called Homes' gland located in the mucosa of the middle of the trigonum vesicae.

The various lobes of the gland send their ducts to open into the posterior urethra.

The function of the prostate gland is the production of a chemical substance which dilutes the testicular and seminal vesicular secretions and separates and activates the spermatozoa. It also contains a specific enzyme which is said to coagulate the secretion of the seminal vesicles, thus favouring the retention of the seminal fluid within the female genital canal and thus promoting impregnation.

Prostatitis is a common disease. It is usually associated with inflammation of the posterior urethra, seminal vesicles, vesical neck, trigone or even the epididymes and should therefore be studied in relation to both the urinary and the genital tracts.

Acute Prostatitis is most frequently due to the Gonococcus when it comes under the attention of the venereologist, but there is also an acute prostatitis which is non-venereal and the most common organisms responsible for this are the staphylococcus albus and aureus, the streptococcus pyogenes and the colon bacillus. Contributory causes of prostatitis are masturbation over a protracted period, excessive sexual excitation without gratification, excessive sexual intercourse and coitus interruptus.

Infection reaches the prostate most commonly from the posterior urethra but it may be descending, as from the kidney, or blood borne, as from a primary focus in the sinuses, teeth or tonsils or again a complication of a condition like influenza.

An acute prostatitis may end in resolution, the formation of an abscess or chronic prostatitis.

Symptoms of acute prostatitis are those of the posterior urethritis with which it is most frequently associated—urgency, frequency, burning, pain during urination and there may be dribbling of urine. The prostate may swell up so much that there is retention of urine. There may be associated fever, and pain in the perineum, rectum, loins, penis or above the pubes may be present.

Diagnosis is easy. Rectal palpation reveals a hot enlarged gland and the second glass in the 2 glass test reveals a cloudy urine.

Treatment consists in rest in bed, avoidance of strain or sexual excitation, the application of heat in the form of hot sitz-baths or diathermy; bromide and diuretic mixtures may be given for relief of dysuria. Chemotherapy is of great value in shortening the acute stage of prostatic infections.

Chemotherapy is used in combating acute and chronic infections of the prostate as also in bladder and kidney affections occurring as a complication of enlargements of the prostate. It has been shown that sulphathiazole and sulfadiazine are of proved superior value in combating the common types of infection due to the Gonococcus, Staphylococcus aureus and albus, Bacillus coli and Bacillus Proteus. The sulfa drugs are concentrated in the urine 10 to 20 times more than the blood concentration and so heavy doses are not necessary.

The usual practice therefore is to give 2 gm. daily (in 4 doses) of sulfathiazole or sulfadiazine for from 6 to 10 days if tolerated well by the patient.

In cases of impending abscess, larger doses as 4 gm. 4 times a day may be found necessary. Penicillin is also useful in such infections. The method (at present adopted in New York Hospital) of giving Penicillin is to give 300,000 units twice a day until fever subsides and then one injection a day for two more days. This method is used in all cases where penicillin is indicated and saves a lot of trouble for patient, nurse and doctor and results have been very gratifying.

Chronic Prostatitis—Chronic inflammation of the prostate gland is a very common condition in adult males. When searching for the source of obscure infectious conditions, it is very important to examine this gland. It is considered as second only to infected tonsils as a cause of arthritis. Chronic prostatitis is most frequently the sequel to an acute infection which may be caused by either the Gonococcus or other organisms. The nonspecific infection is common and may be direct extension from the urethra (as in nonspecific posterior urethritis) or blood borne from focus in the tonsils, teeth or sinuses; or the aftermath of an acute systemic infection. The most common organisms in nonvenereal prostatitis are the colon bacillus and the staphylococcus, streptococcus and their subforms.

Symptoms—The most frequent complaints are of pain, a urethral discharge which may be profuse or merely the so called "morning drop" and some disturbance of sexual function, always accompanied by neurasthenia. The pain may be local or referred. Ordinarily it is located in the perineum, and may be described by the patient simply as a "heaviness" in the rectum. With this type there is generally a

history of the passage of prostatic fluid on defecation. The pain may be referred down the back or inner sides of the legs, or into the groins, penis or sacrum. Frequent and painful urination, urgency, and difficulty are all common complaints, and result largely from involvement of the posterior urethra and bladder neck.

Diagnosis—The diagnosis of chronic prostatitis should be based on (1) Rectal palpation (2) repeated analyses of the voided urine (3) microscopic examination of the prostatic secretion and when necessary (4) urethroscopic examination of the posterior urethra and vesical neck. Rectal palpation may show no abnormality; ordinarily however there will be hard nodules and boggy spots between the areas of induration.

Microscopic examination of the prostatic fluid, expressed by massage is the only reliable method of diagnosing infection in the gland. Often the diagnosis must solely be on microscopic evidence of pus in the expressed secretions. Negative findings on one examination of the prostatic secretion are however, insufficient proof of the absence of infection, since pus in some instances does not make its appearance until after the prostate has been massaged from two to five times. The secretion expressed from the first massage may be from normal portions of the gland and two or more manipulations may be necessary to open the ducts from the diseased portions of the gland. Massage for diagnostic purposes must be carried out firmly enough to express the secretions but gently, as otherwise epididymitis may result.

Normal prostatic fluid is opalescent and viscid, and microscopically is seen to consist of corpora anylacea, lecithin globules and columnar epithelium. In chronic prostatitis the prostatic secretion is less opalescent and much of the lecithin is replaced by pus cells, often in clumps. Bacteria may be present in great numbers.

Urethroscopic examination may be necessary in some cases and the marked chronic inflammatory changes of the posterior urethra provides a clue to the underlying prostatitis.

Prognosis—The patient suffering from long standing prostatitis is not easily cured and so it is advisable to inform him at the outset of treatment.

Treatment—The main problem in the treatment of chronic prostatitis is the restitution of free drainage, since retention favours infection.

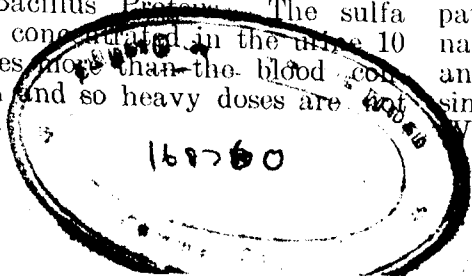
The most effective method of restoring the patency of prostatic and ejaculatory ducts is by a gradual, gentle but thorough dilatation of the prostatic urethra, and then only should massage be carried out. When carrying out dilatation the usual precepts about not using a sound below size 21 French or 12 English should be borne in mind. The dilatation is carried out once a week in the beginning and later once in two weeks and so on.

Prostatic Massage is carried out after each dilatation. It is best done upon a bladder partly filled with antiseptic solution. The best technique for massage is to have the patient on the table in the knee-elbow position and the surgeon with his gloved finger in the rectum carries out gentle pressure upon the lobes palpable, using downward stroking motions directed towards the urethra. Massage is also carried out first once a week and then once in two weeks and finally once a month.

Sulfadiazine or sulfathiazole is given in the small doses mentioned above and may be repeated for a second course 6 to 10 days after the lapse of a week or two.

Spices and alcohol should be omitted from the diet and constipation avoided.

Prostatic abscess is most frequently due to the Gonococcus but may also occur as a complication of systemic



infection or may be secondary to superficial pyogenic infection such as carbuncles and boils.

Symptoms are, pain in the perineum, chills, fever and frequent and painful urination, which may progress to complete retention. Chronic abscess of the prostate may be present in which the only symptom is difficulty of urination.

Diagnosis is made out by rectal palpation when a tender soft prostate is felt. In chronic abscess tuberculosis should be kept in mind.

Prognosis—An untreated prostatic abscess may rupture into the urethra or rectum or it may burrow into the perineum, bladder or even the peritoneum with dire results. If proper drainage is carried out, convalescence is usually satisfactory.

Treatment—Evacuation of a prostatic abscess through the posterior urethra is the method of choice. A sound is introduced into the urethra and a mid line incision made in the perineum. The urethra is exposed and incised upon the sound. The sound is removed the finger inserted into the prostatic urethra which breaks through the urethral wall into the abscess cavity, thus evacuating it. A drainage tube is inserted into the urethra, for drainage of urine and pus and the skin is closed with interrupted sutures.

Evacuation of a prostatic abscess may also be done outside the urethra. An inverted V incision is made in the perineum, the intervening tissues carefully dissected apart and the prostate is exposed to view. It is then incised, pus evacuated and a drainage tube left in.

Tuberculosis of the prostate gland—Tuberculosis of the prostate is almost always a secondary involvement in a progressive tuberculosis which is extending throughout the genital tract. Between 50 to 70 per cent of all cases of tuberculosis of the male genital tract show involvement of the prostate.

Symptoms—With well walled off tubercles in the prostate there may be no untoward symptoms whatsoever. If the tubercles have coalesced and finally ruptured into the urethra there will be frequency, dysuria, haematuria and pyuria.

Rectal examination reveals a nodular elastic gland usually affected on one side only and differing from a carcinomatous condition in that it lacks the board like consistency usually associated with the latter. The secretion may show tubercle bacilli. Guinea pig inoculation of the secretion will clinch the diagnosis.

Treatment—In tuberculosis of the prostate, operation is contraindicated and radical removal of the genital tract is also inadvisable in patients with extensive involvement of the prostate.

Good results have been obtained with the usual hygienic, dietary and therapeutic measures advised for tuberculosis. Injections of gradually increasing doses of Koch's old tuberculin (beginning with 1 cc. 1 in 10 million dilution of Koch's old tuberculin) have been found to be of benefit.

Prostatic calculi—True prostatic calculi are fairly common, being like tiny seeds in the cleavage plane between the hypertrophied prostate and the compressed capsular tissue in benign enlargements of the prostate. These are rarely of clinical importance. Larger stones may form in connection with chronic inflammation.

Diagnosis may sometimes be suspected from rectal palpation, particularly when so marked as to allow crepitation on palpation. The diagnosis is usually incidental to X-ray for other conditions when radio opaque bodies are made out just behind and sometimes slightly above the upper part of the pubic symphysis.

Treatment is seldom necessary for prostatic calculi alone, as they seldom cause obstruction or symptoms. However they may act as foreign bodies in perpetuating infection when removal may be necessary.

Benign hypertrophy of the Prostate—Benign hypertrophy of the prostate gland occurs in from one third to one fifth of all men over 50 years of age. Many theories have been advanced as to why the prostate tends to hypertrophy with age. The chief are (1) that the hypertrophy is due to true tumour formation (2) that it is a fibroepithelial growth akin to myoma of the uterus (3) that the condition is a hyperplasia having its basis in chronic infection and (4) that the hyperplasia is endocrinopathic and due to an improper balance between male and female hormones.

Benign hypertrophy of the prostate most frequently occurs in the middle and lateral lobes, the anterior lobe being affected rarely and the posterior lobe practically never.

Symptoms—Enlargement of the prostate is usually an insidious disease which develops slowly and is marked by gradually increasing frequency and nocturia (nocturnal frequency). This nocturia is characteristic. The patient rests for four or five hours during the first part of the night, is disturbed at 2 or 3 a.m. and may pass water several times after this. The stream is slow in starting and lacks force. Men take this as evidence of advancing age and often pay little attention to it, occasionally haematuria may occur and acute retention may suddenly supervene in a patient when there have been no previous symptoms. Most patients with enlargements of the prostate have decreased libido and impotence. Occasionally however attacks of priapism occur due to the congestion of the Verumontanum.

Diagnosis—The patient should be given a careful general and special examination, including rectal palpation, an estimation of the amount of residual urine, determination of the renal function and examination with a McCarthy's Panendoscope to ascertain the exact nature of the enlargement. The size of the prostate as felt per rectum has nothing to do with its obstructiveness and cystoscopy (or endoscopy) or cysto-urethro-graphy is essential to determine the extent of the intravesical and intraurethral intrusion.

Treatment—Many patients with benign hypertrophy of the prostate have no obstructive symptoms and do not require surgery. In benign hypertrophy without residual urine, palliative treatment is usually advisable, this consists of periodic prostatic massage urethral dilatations, urethrovessical irrigations and when there is urinary infection, suitable chemotherapy.

Hormonal therapy is still in the experimental stage. Some investigators believe that in prostatic hypertrophy there is an improper balance between the male and the female (or the oestrogenic) hormones. In the normal male under the prostatic age, the two sex hormones are supposedly in balance with each other, and with the hormones of the Pituitary and the adrenals. According to these people, benign hypertrophy is due to a deficiency of the male hormone so that the hyperplastic activity of the female (or the oestrogenic) hormones is not inhibited. Hence administration of the male hormone (or testosterone propionate) is carried out.

Contrary to the above view is the opinion that benign hypertrophy is due to a deficiency of the female hormone, normally present in males. Treatment of 23 patients with large doses estrone (or female hormone) resulted in marked improvement. It is considered by some that the benefit obtained by treatment

with male hormone is only due to the stimulation of the detrusor muscle and continued treatment may not only do no good but may be actually harmful.

X-ray therapy of benign hypertrophy is an accepted procedure. There is definite alleviation of associated congestion and oedema in selected cases. Residual urine becomes diminished and patient is relieved for a considerable time. However, it is no substitute for prostatectomy or resection.

Surgical treatment is usually required in cases with residual urine.

Before carrying out surgical treatment preliminary examination and preparation are of the greatest importance.

A blood urea estimation gives a rough indication whether preliminary drainage is necessary or not. When the blood urea level is below 20 mgm per 100 c.c. prostatectomy can be carried out at once. When it is above 20, drainage by either an indwelling urethral catheter (the method most commonly adopted at the New York Hospital) or the usual suprapubic cystotomy is carried out and maintained, until the blood urea settles down. In cases where the blood urea is higher than 50 or 100 mgm per 100 c.c. lengthy drainage is necessary before the patient is fit for operation. At present with blood transfusions when necessary, and sulfanilamide and penicillin, it is possible to operate on patients with blood urea levels upto 50 mgm per 100 c.c.

In addition to blood urea estimation, a preliminary plain X-ray is always taken to determine the size, conformation and location of the kidneys. Routine cysto-urethrograms are also carried out and they give an idea of the size of the prostate. An electrocardiogram is essential and blood pressure estimations are most helpful. In the presence of infection chemotherapy as mentioned above is necessary.

The operative methods available are:-

1. Trans-urethral resection.
2. The punch method as practised at the Mayo Clinic.
3. The Suprapubic prostatectomy.
4. The Perineal and
5. The Retropubic.

Trans-urethral resection requires costly equipment and a long period of training is necessary before good results are possible, even in the best hands operation has to be repeated twice and sometimes thrice to get rid of all the obstruction, and severe strictures requiring long and continued treatment, occur fairly often after trans-urethral methods. On the other hand resection can be undertaken in people who are not fit subjects for any other type of operation, and in median bars and such like obstructions, trans-urethral methods provide an easy way of relieving obstruction.

The Punch method has its adherents in only those of the Mayo Clinic and their disciples.

The Suprapubic operation is the usual method adopted.

The Perineal is considered best for early carcinoma for total prostatectomy.

The Retropubic method as revived by Terence Millen of London has been advocated by him as the ideal approach for the prostate. The method has been modified at the New York Hospital and the results upto date have been very gratifying.

Contracture of the bladder neck and median bar formation—These are common and were once referred to as "Prostatism sans prostate" because in spite of prostatism, (prostatism is the clinical situation resulting from urinary obstruction, which is located at the bladder outlet) the gland is not enlarged, in fact, is usually small. Fibrosis of the bladder neck and prostate most often due to chronic inflammation, is the cause. These occur

in an earlier age group than benign hypertrophy generally about forty. Contracture means a general constriction and immobility of the outlet while bar formation is a more localized process producing a ridge across the floor of the outlet which looks not like a dam endoscopically. The diagnosis depends on the history, the general examination and is clinched on endoscopic examination. The principal method of treatment is trans-urethral resection. The Retropubic approach can also be used, a longitudinal incision made over the capsule of the prostate, the vesical neck is exposed and a V shaped section of the posterior lip of the vesical orifice carried out, with relief of the obstruction.

Carcinoma of the prostate gland—According to Young a fifth of the male patients who seek relief of obstruction of the vesical neck have carcinoma of the prostate. In autopsies on men over 50 years of age carried out at the Johns Hopkins Hospital, 14% showed carcinoma of the prostate and of these 68% had not shown any symptoms. In only 5% of cases is diagnosis made sufficiently early to carry out successful treatment. However, suffering may be relieved and life prolonged for varying periods by methods at present at our disposal.

As with carcinoma elsewhere, aetiology of prostatic cancer is unknown, but a very important relationship has been shown between androgenic hormones and carcinoma of the prostate.

Prostatic carcinoma is insidious and slow growing and may remain confined to the prostate for long periods but there is a high frequency of skeletal metastases in carcinoma of the prostate and the pelvis and the lumbar vertebrae are especially affected.

Symptoms—Disturbances of urination, as in benign hypertrophy, are usually the first symptoms, but advanced carcinoma may be present without urinary

symptoms, as cancer of the prostate most often arises in the posterior lobe of the prostate. Pain referred to the sacroiliac regions, penis, and scrotum is a relatively early symptom in 65% of the cases and may be due to bone metastases.

Diagnosis—Responsibility for the early recognition of prostatic cancer falls primarily on the general practitioner. A routine check up of men over 45 years of age should include a rectal examination and this is of special importance when patients give a history of urinary disturbances.

Rectal palpation reveals a board-like hardness of the prostate. In some cases a single hard nodule may be felt. Occasionally the nodule has sharp edges—a point specially characteristic of cancer.

X-ray examination of the pelvis and lumbar vertebrae reveals spotty areas of increased density in the presence of metastases.

There is one important procedure useful in diagnosis as well as in suggesting the line of treatment in cancer of the prostate, i.e., estimation of the serum acid phosphatase. In cancer of the prostate with skeletal metastases, serum acid phosphate is greatly increased. When these high levels are present indicating metastases, radical prostatectomy is inadvisable, but employment of hormonal therapy is indicated.

Prognosis—Although very few cases are seen at a sufficiently early stage to warrant radical prostatectomy, with present methods of treatment suffering can be alleviated and death postponed for a number of years.

Treatment—Total prostatectomy by the perineal or by the new retro-pubic method or partial prostatectomy by supra-pubic or trans-urethral methods may be carried out according to the stage of the growth.

Radon seeds can be implanted in the prostate after a conservative perineal prostatectomy. Surface application of Radium, interstitial application of radon and deep x-ray therapy help in some cases.

Hormonal therapy.—Dr. Huggins of Chicago was the first to show that carcinoma of the prostate is composed of epithelial cells of a mature type which like adult prostatic epithelium is responsive to depression of the level of androgenic hormones in the organism. Eliminating the gonadal androgens by castration or supervoltage irradiation of the testicles, or neutralizing their activity by oestrogen therapy, decreased the activity of the prostate neoplasm.

In 21 patients who were castrated, 15 showed great clinical improvement as evidenced by marked diminution of pain, increase in body weight, shrinkage

of the primary growth and regression of bony metastases.

Administration of the female sex hormone is routine treatment in cancer prostate with skeletal metastases. This inactivates the gonadal androgens and sometimes even after castration, it is given with the object of dealing with androgenic hormones still present.

Castration or oestrogenic therapy is not curative of cancer and in early cases the only correct treatment is total prostatectomy.

In conclusion, it may be said that it has not been possible to cover all the diseases, nor mention all the points in connection with them. An attempt has been made to give an idea of the present tendencies with regard to diseases of the prostate and their treatment.

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May 1918]

THE TRAGEDIES OF QUACKERY OR AMATEURISM IN MEDICINE

BY

A PUBLIC HEALTH BACTERIOLOGIST

Alfonso Deste, an Italian nobleman and Duke of Perara one day fell into a speculative mood and asked his courtiers a simple question. "What trade or profession is the most common?" This was in 1585 A.D. His jester, Gonelle, promptly answered that medicine had the largest number of *professors* and offered to prove his assertion. The next morning Gonelle left his home with his head swathed in a bandage.

The first man he met asked him what was wrong and Gonelle answered "I have a severe toothache". "Ah, my friend," said the other "I can tell you the best treatment for that; do so and so, and you will be cured". Gonelle wrote his name in his diary, pretending to make a note of the treatment he had suggested. Everyone he met in the streets offered him a different, but simple and efficient cure, declared to have been thoroughly tried and to be infallible. He noted down all their names and the nostrums they suggested. Finally he reached the courtyard of the Duke's palace. The attendants besieged him, each one anxious to offer advice on the best remedies for toothache. Gonelle noted down all these. Then he entered the Duke's chambers. His Excellency was somewhat perturbed when he saw Gonelle with his bandage on, and asked him "What is the matter with you, Gonelle?". The jester replied that he had suffered from a severe toothache all night whereupon the Duke said "I know of something that will promptly stop the pain. Get a handful of the leaves and twigs of a particular spinous plant growing in the dry bed of the Arno river, make an infusion of it and gargle with the hot solution twice a day. You will shed your toothache in no time."

Gonelle immediately threw off his bandage and exclaimed "You, too my lord are a doctor! I have, on my way to the palace this morning, met more than a hundred others whose names and prescriptions I have noted down here in this little diary of mine. Every one in the town thinks he is a physician, can you, my lord, find more people practising any other profession?"

This sixteenth century anecdote is no less true even in this present century, and particularly so in our country where every old grandmother readily offers simple remedies for every conceivable ailment, however serious the malady may be. Every man and every woman is a potential quack, pretending to medical knowledge. In saying this, I only mean that most people believe that, even without the requisite specialised training, they are quite competent to pass judgment on matters relating to health. The average man or woman draws wrong conclusions from personal observations and often believes what he hears or reads without any opportunity to judge of its validity.

Even the most intelligent and successful men often hold erroneous notions of health and disease, but nevertheless do not hesitate to air their medical opinions and beliefs freely and assertively in public. It takes at least four years of intensive study and two of practical experience and training in the specialised subject of his study to make a man a trained observer in even one branch of human learning. Critical ability acquired in one field does not give any guarantee of equal critical ability in any other field. Even if a person has excellent judgment in matters of business or in the share market, his opinion is not necessarily

good in matters of medicine. An expert physician or an eminent surgeon may exhibit very poor judgment in business affairs and may be a failure in share-market speculations.

If you, my good reader, are inclined to doubt my statement that most people are potential quacks let me suggest to you to start a medical discussion at the next social gathering, tea or dinner party you may attend. The result today will undoubtedly be exactly the same as that which Gonelle, the Italian Jester, found in the town of Ferrara nearly four hundred years ago. Now, imagine yourself to be at an informal dinner party, after having attended an evening tea party the same day. Several of the guests would have done likewise and the conversation drifts naturally to a discussion of the indigestibility of two heavy feeds within two to three hours of each other. The man on your right takes over the conversation. He starts an exposition on the subject of food incompatibilities and gravely proclaims that after ice-creams and fruit salads, sambhar and rasam would invariably lead to indigestion and he therefore very scrupulously avoided them at such parties. After this he lapses into silence, being very busy with the first course in the dinner Menu (Bisi-Bhele Huli-amah) of which he calls for an extra helping—oblivious of the fact that it was sambhar he was doing justice to all the time. It is now the friend on the left, who takes up the trend with the statement that the cause of most indigestion lay in the bad habit of drinking iced drinks during meals. Many in the circle nod approval, apparently not mindful of the fact that the exponent of this dietetic doctrine was having his third tumbler of Iced Badham Khseer!! The conversation drifts on to the virtues of fruits and vegetables and naturally then to vitamins and it is not possible to describe or record the amazing diversity of views and beliefs expressed by the

dinners who (everyone of them) would swear by their personal experiences and trials on themselves and their friends (luckily not present at the gathering). Every one present at such gatherings is anxious to believe these statements. They have to accept some one's opinion in matters of health. Every man cannot spend six years of his life in the study of medicine and become a doctor. The quack tells people what they want to believe, a simple and universal cure for disease. It is a delusion which thrives on human hope. *What people, however, do not generally know about the quack is this: viz, he is like the medical amateurs at the dinner table, exploiting his uncritical medical beliefs and that for his personal gain.* The quack has no valid medical knowledge. No Insurance Company will accept his certificate. No hospital will employ him on its staff. The army, navy and air force exclude him from their medical corps. The quack on the other hand complains that the qualified medical profession is a "trust" and refuses to accept any ideas and suggestions that originate among outsiders. This is however *not true*. Was not Louis Pasteur, who gave the world the concept of germs as the cause of certain diseases, who laid the foundation for the use of vaccines and who originated the prophylactic treatment against Rabies, only a chemist and did not the entire qualified medical profession acclaim him as a saviour of humanity?

Every form of quackery today is only a revival of some unscientific and discarded medical practice of ancient days. It may be called sixteenth century medicine revived in the twentieth. The *essence of quackery* whatever form it assumes, is its effect on the *imagination of the patient*—Only imaginary diseases will respond to the ministrations of a quack. The workings of the imagination can exert no effect on the progress of cancer, tuberculosis, heart disease, or any of the

infectious diseases for that matter. There are quite a large number of persons in every country who suffer from imaginary ailments. Their trouble usually arises from fear, worry, or want of adjustment to their environments. They suffer really from what you may term "Peace-time shell-shock". The quacks make their mark in the successful treatment of imaginary non-existent diseases. Let us illustrate this. Take the case of a neurotic person—of these there are thousands everywhere—who develops a pain in the back—not sufficient to incapacitate him but enough to give him the belief that he has kidney disease; he has heard that pain in the region of the back is a symptom of kidney disease. He goes to a physician who after a very careful examination finds no evidence of kidney trouble. He tells the patient that even the gravest kidney trouble rarely causes pain in the back and that his is only a case of a strained muscle. If the patient has confidence in the physician, his mind is at once relieved. But more often he retains his delusion and scorns the suggestion that he consult an orthopaedist, or a specialist in psychotherapy. He seeks help elsewhere. His conviction in his disease is only increased when he consults other physicians and finds none to agree with him. Finally, he falls into the hands of a quack who, after an elaborate exposition of the symptoms of the disease, which the quack makes bold to say is really worse than the patient himself had suspected, and assures him of a positive and speedy cure of his kidney trouble. Having at last found one who agrees with him, confidence is inspired and any form of treatment the quack may deem fit to use will effect a cure of the non-existing kidney disease!!!

The tragedies of quackery do not end here, but have only just begun. The man who feels cured of his imaginary ailment extols the virtues of the quack amidst the large circle of his friends

and their families. *Result:* A still larger clientele of gullible folk is ensured to the Quack-Master-General. The grateful kidney patient sends only for the quack whatever ailment he, his wife or children suffer from. Even when the wife develops a cancer, the quack confidentially treats her with the mumbo-jumbo of his armamentarium while the husband waits with optimism as the cancer progresses without interference into the inoperable and hopeless stage and he then watches her waste away to death. Even then he would sooner put down the catastrophe to cruel fate than to the messing by an incompetent ninecompoop.

People should learn to avoid taking such grievous risks as these. How is anyone, then to avoid falling into the hands of quacks? How are you going to become acquainted with a respectable and qualified doctor in whom you will have confidence and whose advice you will readily get and take? Is it proper to let the matter to rest and depend on chance till an actual emergency or need arises? Will it not be more prudent and sensible to be prepared for any emergency? These questions should naturally suggest themselves to any thinking man. Imagine that a sudden sickness appears in the family late at night. You have to think of a doctor, how to get at him, where he lives, whether he will be available at that hour, and what his stipulations and terms may be. Your sudden choice or the advice given by a well meaning and friendly neighbour may be the most reputable doctor in the town or it may fall on a blatant quack. In either case, there is risk. The reputable physician will be a stranger to you and you to him—a distinct disadvantage to both.

Such risks and uncertainties may be effectively avoided by every family choosing a doctor in time of health, and asking him to give each member of the family a thorough physical exam-

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

Changes in the Visual Fields Confirmed by Pathologic Diagnosis—*J. A. M. A. Feb. 22-47.*—Ophthalmoscopic examination may reveal papilledema and atrophy in intracranial lesions. It may show vascular and retinal changes indicative of cerebral or general systemic disturbances and it may not show anything, even with involvement of the intracranial portion of the visual system, the so-called cases of cerebral blindness. Another aid to the diagnosis of intracranial lesions, possibly of greater importance, is a thorough study of the visual fields. Here again the examination may be negative but it should be pursued routinely and with care. When defects in the visual fields are found they may frequently aid in determining the location and nature of a lesion and its activity and prognosis.

Further aid in diagnosis may be had by study of the reactions of the pupil and the state of the extraocular muscles and by observation of the function of the tissues innervated by the trigeminal and facial nerves as they concern the eye. Other neurologic observations may be of assistance. Examination of the spinal fluid, the blood and the urine may be of value. Roentgenologic studies are frequently helpful. Electrical encephalography with its localizing and diagnosing possibilities will no doubt develop into another source of diagnostic importance.

In order to derive the maximum benefit from studies of the visual fields one must know the anatomic location, structure and disposition of the elements comprising the visual system. For this reason a brief review of the anatomy of the relevant part of the visual system is presented.

Anatomy—From the ganglion cells of the retina axons of the third visual neuron pass, as the nerve fibre layer of the retina, to form the optic nerve which courses to the optic chiasm. Here semi-decussation takes place, and the axons continue as the optic tract to arborize about the dendrites of the fourth visual neuron in the lateral geniculate body. Clinical lesions have clearly located the position of the fibres from the upper and lower, inner and outer quadrants of the

retina and have fairly well indicated the position of the macular fibres. The axons from the macular area of the eye, forming the papillomacular bundle, enter the optic nerve in the temporal side of the papilla, displacing the upper and lower peripheral temporal fibres. These, in turn, crowd and somewhat displace the upper and lower nasal fibres. As the nerve approaches the optic chiasm the papillomacular bundle assumes a central position with the quadrants of the retina approximately represented in their proper relative position. Passing through the chiasm the temporal retinal fibres continue in the optic tract on the same side, while the nasal retinal fibres cross over to the opposite side. The right half of each retina forms the right optic tract and the left half of each retina the left optic tract. The macular fibres in the papillomacular bundle also partially decussate as they pass through the chiasm to enter the dorsal portion of the optic tract.

As the optic tract proceeds there is a twisting or torsion of all of the nerve fibres, the macular fibres assuming a superior position with a central wedge, the peripheral retinal fibres lying below. The upper peripheral retinal fibres are mesial to and slightly above the lower retinal fibres, which are laterally placed. This torsion proceeds along the course of the optic tract to the lateral geniculate body. In the optic tract fibres representing the retinal quadrants are apparently bunched at first and then separate and intermingle farther back. They terminate in the horseshoe-shaped lamellæ of the lateral geniculate body in alternate layers, first from one eye and then from the other. The axons from the upper part of the retina pass to the mesial prong and those from the lower part of the retina to the lateral prong of the geniculate body. This grouping of fibres from one retinal area, especially forward in the tract, probably accounts for the incongruity in defects of the visual fields when lesions are located in the optic tract.

In the optic radiations, fibres spread out and spiral in various planes so that defects of a sector or quadrant of the visual field with small lesions are to be expected.

mination. Such an examination includes the percussion and auscultation of the lungs and heart, the estimation of the blood pressure, the inspection of the throat, tests on the faeces and urine and if necessary X-ray examination of the chest, all of which would make a health audit complete. By this means, the qualified physician will detect incipient diseases and arrange for proper remedial measures. The assurance of existing health, obviates the occurrence of imaginary ailments which many people suffer from. The records maintained of the state of health in your family are of inestimable value when emergencies arise.

Quackery has the same relation to legitimate medicine that wildcat speculation has to reputable banking and investment. In both walks of life quackery has many victims. The story of a famous quack who flourished and made heaps of money in London in

the 18th century is worth recording here. Rock was his name and he sold a cure-all panacea for all diseases, from an open-air booth near St. Paul's Cathedral in London. He succeeded famously. One day an old friend and school-mate of his chanced to pass and after mutual greetings the two went into a neighbouring inn to pledge their ancient friendship. The visitor with all the brusque frankness of childhood friends, revealed his surprise at the quack doctors' success in these words "Thou knowest, thou never had any more brains than a pumpkin. How came thou to succeed so well?" Instead of getting angry the quack took him to an adjacent window overlooking the street and asked him to count the passers by. When twenty had passed he asked the visitor "How many wise men do you suppose were amongst the 'twenty'?" "Mayhaps one" was the reply. "Well," returned the quack "all the rest will come to me".

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The axons from the median half of the cells of the lateral geniculate body, representing the upper retinal fibers, pass as the upper optic radiations through the upper temporal, lower parietal and occipital lobes, lateral to the posterior horn of the lateral ventricle, to terminate in the sensory cortical visual area, the striate area, of the cuneus above the calcarine fissure. Axons from the lateral half of the geniculate body, as the lower optic radiations, first course forward and around the temporal horn of the lateral ventricle. This is known as Archambault's, Flechsig's Meyer's or Cushing's loop. The fibres then proceed posteriorly through the temporal and occipital lobes to the visual sensory area of the cortex in the lingual gyrus below the calcarine fissure. The torsion of the fibres of the optic tract is neutralized by the spiraling of the fibres of the optic radiations, so that the upper part of the retina is represented by the upper radiations and cuneus and the lower part of the retina by the lower radiations and lingual gyrus.

The macular fibres probably pass in the optic radiations directly to the occipital pole and its vicinity. The discussion over sparing and nonsparing of the macula still continues. It is known that the macular fibres semidecussate at the optic chiasm and terminate at least for the most part at the posterior pole. Further details are not definitely established. Several reasons have been advanced for the sparing of the macula in lesions which should supposedly include it. Chief among them are the following:

1. There is a crossing of macular fibres in the region of the occipital lobe to the opposite visual cortex through the splenium of the corpus callosum. If this is the case these fibres might pass short of a lesion on one side and course to the opposite striate area.

2. There is a dual blood supply to the macular cortical area from the middle and posterior cerebral arteries. The probabilities are that sufficient circulation to the macular area is maintained by one nutrient vessel if the other ceases to function.

3. There is an extensive macular representation throughout the entire striate area. The inference here is that a lesion

must be large enough to affect the entire visuoreceptive area before it can produce loss of macular vision.

4. The patient with loss of half of the macular field unconsciously fixes slightly to one side of the fovea, using a functioning paramacular area to compensate for the loss.

The sensory visual cortex of the occipital lobe, the striate area (area 17 of Brodmann), is joined by intragyral and intergyral fibres (arcuate fibres). These fibres also extend to the adjacent psychic visual cortex, which is also termed the parastriate and peristriate or parareceptive and perireceptive area (area 18 and 19 of Brodmann). These areas are concerned with visual reception and recognition and with revisualization and visual comprehension. Still higher visual centres are those in the angular and supramarginal gyri in the lower posterior parietal lobe. Implication of these various so-called visuopsychic areas produces disturbances in visual perception and recognition, interpretation and evaluation and reaction to visual stimuli. Even though the visual object is seen by the sensory cortex, a disturbance or destruction in the adjacent higher visual area renders the person blind to its presence or to its proper reception or evaluation.

Clinical Manifestations—Defects in the visual field and other clinical manifestations of diseases of the visual system vary chiefly as they concern the location and type of lesion. The chief components of the visual system are the retrobulbar optic nerve, the optic chiasm, the optic tract, the optic radiations and the visual cortex. The types of lesions, for the sake of simplicity and organization, are loosely grouped into inflammations, tumors and vascular affections. Inflammations include a variety of conditions, some probably more primarily degenerative than inflammatory. Tumors include, besides neoplasms, other expanding growths, such as aneurysms, hematomas, abscesses, tuberculomas and gummas. Vascular diseases are produced chiefly by sclerotic and thrombotic vessels and, less frequently, by embolic occlusion. Angiospasm may also produce occasional vascular disturbances.

Retrobulbar Optic Nerve—The retrobulbar optic nerve is involved chiefly in inflammations resulting in various types of retrobulbar neuritis which may be divided into extraneural neuritis or perineuritis and intraneural neuritis.

The perineuritis which affects the sheaths of the optic nerve is frequently an extension from the meninges of the brain or from infections of the orbit and the sinuses. The so-called chiasmatic arachnoiditis is a more or less localized form of meningitis usually caused by the coccic infections which involve the optic chiasm and intracranial portion of the optic nerve. The visual fields usually show unilateral or bilateral concentric or sectoral peripheral defects. Meningovascular syphilis produces another type of basal meningitis frequently affecting the prechiasmatic optic nerve. In these cases superior altitudinal loss in the visual field may occur. Tumors of the nerve sheath such as meningiomas and tumors in the neighbourhood, both orbital and intracranial, either by direct pressure on or by interference with the blood supply, may produce peripheral changes in the fields. Sclerotic arteries and expanding aneurysms may act in like manner. Injuries to the optic nerves, which are especially vulnerable as they pass through the optic foramen, may produce changes in the visual fields.

Retrobulbar optic neuritis usually presents a central type of defect of the visual fields. The scotomas may be relative or absolute, or both. They may be paracentral, pericentral, cecocentral, sectoral or annular. With these central changes slight peripheral constriction is not uncommon. The changes in the central field may be an extension from perineuritis or they may develop from an infected infract which forms a metastatic abscess. Systemic infections such as influenza and the exanthematos disease may produce retrobulbar neuritis. The chronic infections such as syphilis, tuberculosis, arthritis and gonorrhea may produce lesions of the central optic nerve with changes in the visual fields. Syphilis frequently produces definite and progressive concentric constriction of the visual fields.

Probably the chief cause of retrobulbar optic neuritis is multiple sclerosis (dis-

seminated sclerosis), one of the demyelinating diseases. This condition seems to have a predilection for the retrobulbar axons of the optic nerve. In these cases the lesions, and changes in the field, are usually unilateral, variable, mobile, fluctuating and fleeting. An acute type is that of transverse neuromyelitis optica of Devic, in which sudden and complete bilateral blindness occurs though one eye may be affected in advance of the other. There may be no change noted in the appearance of the fundi. Other types of demyelinating disorders are the acute disseminating encephalomyelitis usually caused by various infections and fevers and the encephalitis periaxialis diffusa of Schilder, a chronic form which is frequently located in the occipital lobe and optic radiations.

Some of the abiotrophic or early degenerative changes may affect the retrobulbar optic nerve. Leber's hereditary optic atrophy is a good example. It is definitely of a hereditary and sex-linked character and usually affects males. Central blindness frequently develops because of degeneration of the papillomacular bundle. At the same time concentric peripheral contraction may be noted.

Toxic amblyopias from exogenous poisons attack chiefly the subchiasmatic optic nerve. Some authors believe that the retina may also be affected, the axons of the optic nerve from the ganglion cells of the retina being secondarily affected. It is exceptional to find pathologic changes in either location. In the usual type of amblyopia there is a bilateral involvement of the central fields implicating the papillomacular bundle. Tobacco and lead are common examples of poisons having this effect. In tobacco amblyopia the scotomas are usually centrocecal and relative with absolute nuclei. Ethyl alcohol is extremely toxic and produces permanent destruction of the optic nerve in those who survive. Lead and the inorganic compounds of arsenic produce bilateral defects of the central field frequently with some peripheral constriction.

Peripheral defects of the visual fields in amblyopia are found in poisoning with organic compounds of arsenic, in which there is frequently seen extreme bilateral

concentric constriction. Quinine, in those with an idiosyncrasy for the drug, manifests similar changes. Aspidium is in this class.

Chronic types of retrobulbar neuritis are occasionally found. They may resemble toxic amblyopia and are frequently bilateral. The longer the condition persists the less chance there is of recovery with restoration of the areas in the visual fields which have been lost.

In retrobulbar inflammations of the optic nerve a thorough history is necessary in order to determine the presence of the infection of poison. Thorough laboratory tests are necessary as well as a roentgenologic examination of the nasal sinuses, orbit, optic foramen and prechiasmal area. Occasionally encephalograms may be helpful. Tumors and vascular lesions must be excluded.

Optic Chiasm—The optic chiasm is involved chiefly by pituitary tumors, although other neoplastic growths in the neighbourhood may also affect it. Pituitary tumors usually first press on the lower mesial fibres of the chiasm, producing a defect in the upper outer quadrants of the visual fields. Frequently one side is in advance of the other. As the tumor expands the upper mesial fibres are affected, resulting in a bitemporal hemianopsia. Then the lower nasal fibres become involved, and finally total loss of vision results. The loss in the visual fields usually develops counterclockwise in the field of the right eye and clockwise in the field of the left eye. The optic chiasm may be affected by other tumors in the neighbourhood such as craniopharyngiomas and meningiomas of the sphenoidal ridge and tuberculum sellae. Tumors of the third ventricle may press forward on the optic chiasm, producing bitemporal and central defects of the visual fields.

In this same area sclerosis of the internal carotid artery as it lies against the optic chiasm may produce binasal or altitudinal defects of the fields. An expanding aneurysm of the arteris in this location also may involve the optic chiasm.

Inflammation of the meninges forming the chiasmatic cistern may produce defects of the visual fields, frequently of the

altitudinal type. This is seen in chiasmatic arachnoiditis and meningovascular syphilis. Extension of retrobulbar optic neuritis may include the optic chiasm producing bilateral defects of the fields. Plaques of multiple sclerosis may also occur in the chiasm, usually resulting in bilateral scotomas.

In this area roentgenologic examination is usually of great importance. Expanding lesions, chiefly adenomas of the pituitary, produce deformities of the sella and erosion of the clinoid processes and the sphenoidal ridge and may produce shadows which are found chiefly in craniopharyngiomas and certain types of meningiomas and gliomas. Encephalograms and possibly ventriculograms may be necessary to reveal surface or internal disturbances in the cranial cavity. Neurologic and laboratory tests, especially in reference to the pituitary and the autonomic nervous system, are frequently of aid in establishing a diagnosis.

Optic Tract—The optic tract is affected chiefly by tumors at the anterior end which are the same as those involving the chiasm. Farther back vascular lesions are usually more frequently found. Tumors of the third ventricle or the temporal lobe may involve the optic tract from within or from without.

The anterior part of the optic tract, as well as the optic chiasm, is supplied by many vessels from the circle of Willis. For this reason it is not apt to be involved in vascular disease because of its good blood supply excepting from pressure of sclerotic vessels, aneurysm and clot. Farther back the tract is nourished chiefly from the anterior choroidal artery. A thrombosis of, or an emboli in, that vessel produces a homonymous hemianopsia, usually complete.

Because of the distribution of the visual axons in the optic tract changes in the fields are frequently in a sector or a quadrant and are homonymous. However, if the lesion is forward, bitemporal loss in the fields may be found. The edges of the defects in the visual fields are usually sloping and incongruous at the forward end, as the fibres from the crossing have not yet intermingled with the lateral fibres passing straight through the chiasm. The

macular bundle of the optic tract may or may not escape the lesion. Forward, it is more apt to become implicated, as it lies in the dorsal posterior part of the chiasm from which it passes into the dorsal part of the optic tract.

Inflammation from meningitis of various types, abscess and syphilitic and tuberculous infection may be found in the area through which the optic tract courses. These conditions are less frequently the cause of involvement of the optic tract than are tumors and vascular lesions.

Roentgenologic examination may reveal changes of diagnostic importance, especially at the anterior end of the optic tract, in conjunction with those conditions producing chiasmatic disturbances. As the tract skirts the hypothalamus, which contains the nuclei of the autonomic nervous system, defects in the visual fields may be combined with parasympathetic or sympathetic nervous symptoms. Diabetes insipidus is not uncommon, with involvement of the anterior part of the hypothalamus, and disturbances of heat regulation and blood pressure, among other manifestations, result from affection of the middle and posterior parts of the hypothalamus.

Lateral Geniculate Body—In the lateral geniculate body isolated lesions have not, to my knowledge, been reported or recorded. Therefore involvement of the lateral geniculate body may be included in lesions of the posterior optic tract or of the beginning optic radiations. As the lateral geniculate body is at the retrolenticular end of the posterior limb of the internal capsule, its implication may produce homonymous hemianopsia along with sensory and motor disturbances by diseases of the adjacent superior peduncle of the thalamus and posterior limb of the internal capsule.

Optic Radiations—In the optic radiations vascular diseases are the most frequent. As the radiations cover a great part of the superior temporal lobe, the posterior inferior edge of the parietal lobe and the occipital lobe, a large area is involved, so that many localities may be affected and rather large lesions may result. The anterior choroidal artery is the main vessel to supply the anterior part of the radiations, especially the lower

visual fibres. In the middle portion of the radiations the middle cerebral artery and in the posterior radiations and visual cortex both the middle cerebral and the calcarine—especially the latter—branch of the posterior cerebral arteries are the nourishing vessels. Frequently thromboses of these arteries, and occasionally emboli, produce disturbances of the visual fields.

Visual field changes are not exceptional in tumors of the optic radiations. Tumors of the anterior temporal lobe affecting the lower optic radiations show defects in the upper part of the visual fields, frequently with some disturbances of audition and equilibrium. Farther back, the lower optic radiations are involved in tumors of the lower temporal lobe and the occipital lobe. Tumors of the upper temporal lobe, the lower posterior parietal and the upper occipital lobe affect the lower parts of the visual fields. In addition, visual hallucinations may occur if the lesion is on the dominant side (left side in the right handed).

Inflammations may affect the optic radiations. Occasionally a case of paraxial diffuse encephalitis of Schilder is seen in which plaques have been produced in the optic radiations. Some types of encephalitis may involve the radiations.

The defects in the visual field from radiation lesions usually show edges sharp and congruous. The macular fibres are usually spared, at least in part, and seem less likely to become involved the farther back the lesion occurs.

Ventriculograms may show an obliteration of a ventricle or its displacement. A pineal shadow also may indicate the presence of a lesion by its displacement. Meningiomas and oligodendrogliomas may produce shadows. Cardiovascular-renal and blood studies are of great importance, as most of the lesions are vascular. Injuries are not in frequent in this location and require thorough study by the ophthalmologist as well as by the neurologist and the neurosurgeon.

Visual Cortex—Visuocortical lesions are also chiefly vascular. The chief arteries supplying this area are the middle and posterior cerebral arteries, of which the calcarine branch is the most important. Defects

Date	Venue	Subject of talk	Name of speaker
17-4-48	Pastour Institute, Coonoor	Demonstration of cases of nutritional deficiency	Dr. V.N. Patwardhan Ph.D. and Dr. N. Ramalingaswamy, M.D.
Combined meeting of the Coimbatore and the Nilgiris Dist. Branch at Coonoor. 17-4-48		Recent advances in the diagnosis, treatment and prevention of the tuberculosis	Dr. B. S. Viswanathan.
		Public Health problems of Refugee camps	Dr. R. N. Sinha.
		A new approach to the problem of plague control	Capt. A. M. Francis.
22-5-48	Tajmahal Hotel, Ootacamund	Medical Education	Dr. U. Krishna Rao.

The Association collected Rs. 545 from among its members for the Refugee Doctors Relief Fund and forwarded the amount to the Provincial Branch. The following resolution of condolence was passed unanimously, all members standing, at its meeting held on 21st February 1948 at the Garrison Talkies, Wellington.

"This meeting of the Nilgiris Dist. Branch of the I.M.A., places on record its profound sorrow at the tragic death of Mahatma Gandhi, the father of our nation and the greatest force for peace in this world."

MADURA BRANCH

President: Dr. P. Vadamalayan
Vice-President: Dr. N. Krishnamurthy
Secretary: Dr. S. G. Fletcher
Treasurer: Dr. A. S. Annamalai.

The 20th Annual Conference of the Madura Medical Association was held on 3-4-48 at the Victoria Edward Hall, Madura.

The following office-bearers were elected for the year 1948.

President: Rao Bahadur Dr. P. Vadamalayan, M.B.B.S.
Vice-President: Dr. N. Krishnamurthy, L.M.P.
Secretary: Dr. S. G. Fletcher, M.B.B.S., L.O.
Treasurer: Dr. A. S. Annamalai, M.B.B.S.

Members of the Governing Body

Dr. A. K. Rajagopalan, L.M.P.
Rao Sahib Dr. A. Narayana Menon, M.B.B.S.
Dr. K. G. Ramabhadran, L.M.P.
Dr. E. S. Chellappa, M.B.B.S.
Dr. G. A. Naidu, M.B.B.S.
Dr. (Miss) Grace A. Kennett, L.M.P.

Members of the Central Council

Dr. N. Suryanarayanan, L.M.P.
Dr. S. G. Fletcher, M.B.B.S., L.O.

Members to the Provincial Council

Dr. A. K. Rajagopalan, L.M.P.
Dr. A. S. Annamalai, M.B.B.S.
Dr. N. Krishnamurthy, L.M.P.

Collaborator to the Journal of I.M.A.

Dr. S. Kanthimathinathan, L.M.P.

The outgoing president Rao Sahib Dr. A. Narayana Menon, M.B.B.S. handed over charge to the newly elected president Rao Bahadur Dr. P. Vadamalayan, M.B.B.S. and wished him and the Association success.

In his presidential address Dr. P. Vadamalayan made an earnest appeal to the Government for the early establishment of the proposed Medical College at Madura. He suggested that the wealth of clinical material found in Madura can be made

use of for research work and the Erskine Hospital for refresher and post graduate courses.

Referring it as a pressing need he pleaded for the establishment of Tuberculosis Sanatorium at Madura.

He also appealed to the members of the Association to help in the early realisation of building a Home for the use of the local association.

The following resolution proposed by Dr. N. Suryanarayanan was unanimously adopted.

"This conference recommends that there must be only one Medical system approved

throughout the world and that all indigenous systems in India should be subject to scientific scrutiny and integrated into one approved system."

The following papers were presented at the conference:—

1. The Female Sex Hormones and their place in treatment—by Dr. (Miss) D. J. Thompson, M.A., M.B.B.Ch., M.R.C.O.G.

2. Prevention and Treatment of some of the common disorders in childhood by Dr. S. T. Achar, M.D., F.R.C.P.

3. Some aspects of Surgical needs of our country by Dr. K. Rama Menon, M.B.B.S., F.R.C.S. (E)

SALEM BRANCH

President: Dr. B. A. Rajarathnam
Vice-President: Dr. S. Krishnamurthy Rao
Secretary: Dr. K. R. Hariharan
Treasurer: Dr. K. V. Dhanakoti Naidu

The annual meeting of the association, which took the shape of a full conference, was held at Free Masson's Hall, Suramangalam, on Monday the 3rd May, 1948. Almost all the local and mofusil members in addition to the distinguished guests, Col. Bhatia, Surgeon-General with the Govt. of Madras, Dr. P. Arunachalam, First Physician of Stanly Hospital, Madras, Dr. P. A. S. Raghavan, Secretary of the Provincial Branch of the Indian Medical Association, Trichy, Doctor invitees from the town, all parts of the district and the neighbouring district of Coimbatore and medical representatives of leading Pharmaceutical firms, both foreign and Indian, attended the meeting. Mrs. Bhatia was pleased to grace the occasion with her presence.

At the business meeting held at 3-30 P.M., with Dr. B. A. Rajarathnam in the chair, the minutes of the previous meeting held on 3rd April, 1948, were read, approved and confirmed.

The report of the Audit Committee for the year 1947-48 was read and approved unanimously, being proposed by K. R. Hariharan and seconded by Dr. G. S. Ramachandran.

The following office-bearers were elected for the year:—

President:—It was proposed by Dr. P. S. Ramaswamy, that Dr. B. A. Rajarathnam be re-elected President for the current year. Dr. S. Valeeswaran seconded the proposition. There was no other proposal and Dr. B. A. Rajarathnam was unanimously elected President of the association for the year.

Dr. G. S. Ramachandran proposed that the strength of the executive committee be enlarged to nine members instead of the present six, and to elect a Vice-President for the association. The proposal was seconded by K. R. Hariharan and passed unanimously.

Vice-President:—Dr. M. B. Yuvaraj Singh proposed that Dr. S. Krishnamurthy Rao be elected Vice-president of the association and was seconded by Dr. S. Valeeswaran. There being no other proposal, Dr. S. Krishnamoorthy Rao was unanimously elected Vice-president.

Secretary:—Dr. G. S. Ramachandran proposed that Dr. K. R. Hariharan be elected Secretary of the association and was seconded by Dr. S. R. Rajaram. There being no other proposal, Dr. K. R. Hariharan was elected Secretary unanimously.

Treasurer:—Dr. S. Krishnamoorthy Rao requested Dr. K. V. Dhanakoti Naidu to continue as the treasurer for the year.

Dr. S. R. Rajaram supplemented Dr. Krishnamoorthy Rao's request and Dr. K. V. Dhanakoti Naidu, acceding to the request, was unanimously proclaimed treasurer for the year.

Committee Members:—

The following Doctors were unanimously elected to serve on the committee:—

1. Dr. S. R. Rajaram
2. Dr. K. V. Bala Gangadar
3. Dr. G. S. Ramachandran
4. Dr. M. B. Yuvaraj Singh
5. Dr. L. Sylvester

After the business meeting, the gathering sat for Tea at 4-45 P.M. The distinguished guests arrived a few minutes later and were received by the President, the Secretary and members of the committee.

The proceedings of the Conference started precisely at 6 P.M., when the President Dr. B. A. Rajarathnam invited—Dr. R. Shanmugham Pillai, District Medical Officer, Salem, to deliver the welcome address. Dr. Shanmugham Pillai, in a short but concise speech, welcomed Col. and Mrs. Bhatia, Dr. Arunachalam, Dr. Raghavan and others and paid a tribute to Col. Bhatia's keen interest in Medical Research and Rural Medical Relief. Supported by statistics, he put in a strong plea for the establishment of four regional research centres, in the Circars, Ceded Districts, Tamil Nad, and Kerala, for the study of ailments peculiar to each centre and the necessity for a Central Institute at Madras, to co-ordinate the work of the regional centres. Dr. Shanmugham also stressed the need for a Medical Library and a Medical Club.

The President Dr. B. A. Rajarathnam, after welcoming the distinguished guests of the evening, referred to the selfless service that the medical man is obliged to give by virtue of his calling, and the responsibilities that devolve on him. The need for more sympathy and relief from the State to the medical man was emphasized by the President. The allopathic system compared to its rationale and scientific nature, belies its apparent costliness, the President remarked.

The Secretary Dr. S. R. Rajaram, before reading the Annual Report of the association, pleaded strongly for the early esta-

blishment of a T.B. Clinic and a T.B. Sanatorium for the District.

Col. Bhatia, then addressed the gathering for more than half-an-hour. After referring to the new status of our nation and the passing away of the Architect of our Freedom, he exhorted the medical man to follow the life and teachings of Mahatma Gandhi, by serving his fellow-beings with the Gandhian-spirit of sympathy, understanding and charity. Col. Bhatia reminded the members of the Profession, that their responsibilities were greater in a Free India since the duty of improving the health of their nation rested on them.

The useful nature of associations like this, in promoting technical knowledge, in reflecting public opinion, and in giving suggestions for the Government in matters of Public Health, was explained by the learned speaker. The necessity for all medical men to join such associations was also impressed by him.

Making a brief survey of the Medical Institutions of the Province, the Surgeon General remarked, that the teaching Institutions are adequate and upto the standard and that the Hospitals of the Province are also fairly well equipped. The need for more laboratories and research institutions and the absolute necessity for the speedy establishment of a School of Tropical Medicine and Hygiene at Madras as also a school of Dentistry was emphasized by Col. Bhatia.

Referring to the needs of the District, the Surgeon-General assured that he would do his best to expedite the opening of a T.B. Clinic and a T.B. Sanatorium for Salem.

Dr. P. Arunachalam, the principal lecturer of the evening, then treated the audience to a most learned lecture on 'Recent Advance in Therapy'. Beginning with the sulphanamides, the lecturer dwelt on all the recent drugs like Pencillin, Streptomycin, Ante-Histamine drugs, Folic acid Pyridoxine and Thiouracil. The practical application with details of indications and methods of usage, were explained, by the learned speaker.

Case report to illustrate the action of Streptomycin, were read and demonstrated.

Dr. P. A. S. Raghavan of Trichy was the next speaker of the day and he gave a

very impressive talk about the use of X-Rays in treatment.

The President in his concluding remarks opined that the need of the hour in matters of Public Health in the Province, are constructive statemen who can act with far-seeing vision and not politicians on the platform.

Dr. P. S. Ramasamy, before proposing a vote of thanks to the distinguished guests of the evening, the Doctor invitees, the members and office-bearers of the association and the representatives of various medical firms, referred to the fallacy of the Bhore Committee's report and its utter impracticability in poverty stricken India, though free, with facts and figures to prove his contention.

The gathering were then treated to a most interesting and enjoyable exhibition of a motion picture on Vitamin B 1 by Messrs. Eli Lilly & Co., of India (Inc.) of Bombay.

The Conference terminated in a delightful Dinner at which the members of the Government Head Quarters Hospital Nursing staff in their charming costumes, added some colour and pip to the show.

Messages wishing the function all success were received from

1. Dr. T. S. Tirumurthi, president of the Provincial Branch of I.M.A.
2. Dr. U. Krishna Rao, Worshipful Mayor of Madras.
3. Dr. H. M. Lazarus, Principal, Christian Medical College, Vellore.
4. Dr. R. V. Rajam, Special Department, General Hospital, Madras.
5. Dr. R. Subramaniam, Assistant physician, General Hospital, Madras.
6. Dr. R. Sankaran of Madras.
7. Dr. S. G. Fletcher, Secretary, Madura Medical Association.
8. Dr. C. V. Ramaraj, Secretary of the Coimbatore District Medical Association.

* * * * *

An emergent meeting of the Association was held at Foulkes Hall on Saturday the 15th May, at 6 P.M. The unexpected presence of Dr. P. Natesan, Venereologist of Stanley Hospital, Madras, at Salem, provoked the emergent meeting and in-

timation could be sent only to the local members. In spite of the short notice, 27 members attended the meeting.

After the usual tea, which was kindly provided by Dr. S. Valeeswaran, the proceedings started at 6-45 P.M.

The President introduced the learned lecturer to the members, as a Salemite, and paid tributes to the enterprising and self confident nature of Salem people in general and Dr. Natesan in particular.

Dr. Natesan then addressed the members for a little over an hour on 'current treatment of Social Diseases'. The speaker from the outset kept the audience enthralled, by his clarity of expression, erudition of speech and profundity of knowledge.

The learned lecturer deprecated the social stigma attached to the so-called social diseases, and explained how this impeded both their prevention and proper cure.

Starting with the most ancient and venerable of them, (namely Gonorrhea) Dr. Natesan in the short time at his disposal gave practically a full treatise on all the known venereal diseases and their complications, with special reference to the latest practical methods of treatment.

The lack of facilities for maintaining proper records of cases even in first class institutions, was a serious handicap in developing research, the speaker remarked.

The President also reiterated the learned speaker's opinion regarding maintenance of case records and said that the State would be well advised to utilise the services of technical experts fully, by employing more lay staff in all institutions.

Various points of discussion were raised by interested members and the lecturer patiently answered all their doubts.

The Secretary wound up the proceedings by proposing a vote of thanks to the learned lecturer, Dr. Valeeswaran, the host of the evening, the President and all the members, who in spite of the short notice given, found it convenient to attend the meeting.

**Lt. Col. AMIRCHAND, President, Indian Medical Association
in Madras**

After a tour of the States of Cochin, Travancore and Mysore Col. Amirchand, the President of the I. M. A., Lt. Col. T. S. Shastry and Dr. P. A. S. Raghavan, the Secretary of the South Indian Provincial Branch of the I. M. A. returned to Madras on the morning of the 10th May 1948.

To meet the President and the members of the Provincial Council

Dr. U. Krishna Rao, the Mayor of Madras gave a delightful lunch party at Bosetto at which were present the Hon'ble Mr. A. B. Shetty Minister for Public Health, Hon'ble Dr. T. S. S. Rajan, Minister for Food, Col. S. L. Bhatia, Surgeon-General with the Govt. of Madras, the Principals of two medical colleges in Madras, and eminent medical men of the city. After lunch Dr. U. Krishna Rao extended a hearty welcome to Col. Amirchand to Madras and requested him to speak on his tour of the States. Col. Amirchand and Col. Shastry explained in detail about the activity of the Mission in the States, to convert the State Medical Associations into branches of the I. M. A.

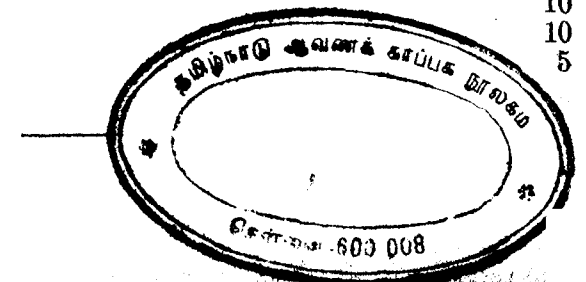
In the evening the members of the Madras Branch met the President and the members of the Provincial Council at a Tea Party at Woodlands. In addition to those that were present at the lunch a large number of medical men numbering over 100 attended the function.

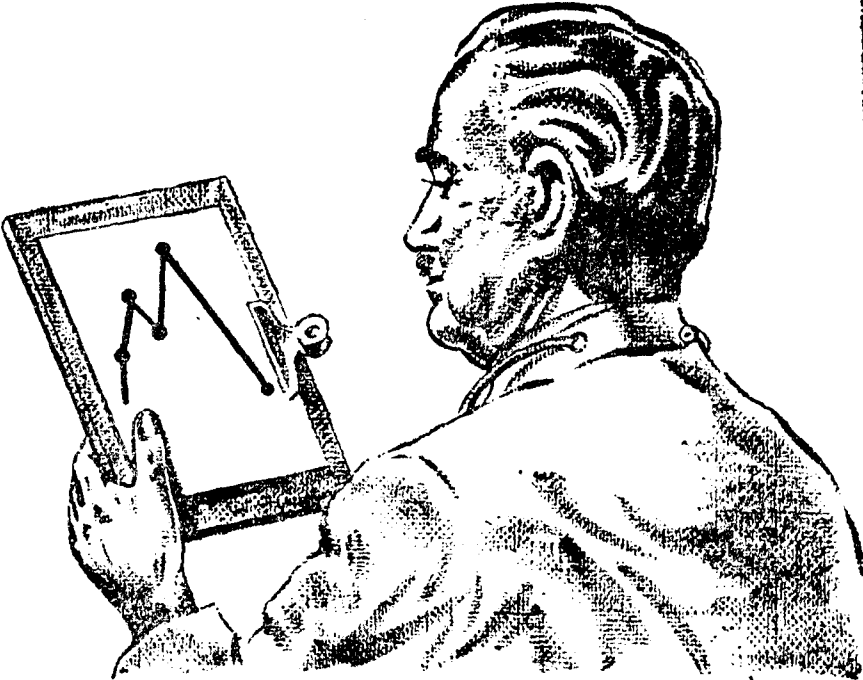
Dr. K. C. Nambiar the President of the Madras Branch and Dr. S. Thambiah extended welcome to Col. Amirchand the President and impressed on the need of all medical men being members of the I. M. A. and taking concerted action on important matters that have to be faced in the future. Col. Amirchand explained in detail about the tour of the States and said he was confident that the 3 State Medical Associations would join the I. M. A. soon. Lt. Col. Shastry also spoke on the work done by the Mission and the great sacrifices made by Col. Amirchand.

With a vote of thanks proposed by Dr. K. Rama Rao, the gathering broke at a late hour.

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Dr. M. N. Mahadevan		20
Dr. C. N. Ramadoss		20
Dr. K. S. Subramanyam		10
Dr. T. B. Subba Rao		10
Dr. N. R. Kaiwar		10
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"Why ever do you do that."

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THE MISCELLANY

Managing Editor: Dr. P. A. S. RAGHAVAN

MONTHLY JOURNAL OF THE SOUTH INDIAN BRANCH
OF INDIAN MEDICAL ASSOCIATION

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G. O. No. PS. 2301 Public Health

Dd. 7th July 1948.

The latest G. O. on the Unification of the Civil Medical Service, instead of unifying the various cadres only creates another cadre, a sub caste. The Indian Medical Association and the All India Medical Licentiates Association have been agitating to have one Civil Medical Cadre.

The latest G. O. does give scope for some Sub Assistant Surgeons (Assistant Surgeons Grade II) to be promoted to gazetted rank, whereas the Associations have been demanding gazetted rank to all the existing Sub Assistant Surgeons, as there will be no more licentiates for recruitment hereafter and as the existing licentiates in service have already put in more than 10 or 12 years service. Hence there is no need for consulting the Public Service Commission.

It is regrettable that Licentiates who held Commissioned rank in the Army are not to be appointed directly as Civil Assistant Surgeons Grade I and the G. O. is silent whether they would be appointed at least to the gazetted cadre of the Assistant Surgeon Grade II. In other departments of the Government, candidates who held commission in the Army are given Gazetted appointments while this facility is denied to the technically qualified and urgently required class of people, the medical men.

It is also regrettable that the Government do not approve the doctors employed in the Municipalities and Local Board institutions being given the Gazetted rank.

It is a pity when there is a great demand for doctors, as restrictions could not be relaxed for recruitment of medical men.

P. A. S. RAGHAVAN.

15-7-48



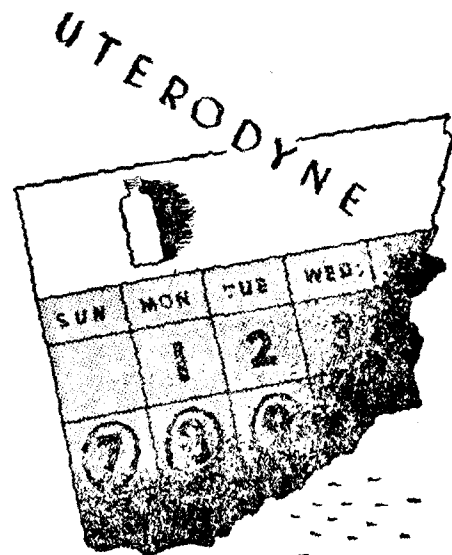
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THE MISCELLANY

JOURNAL OF THE SOUTH INDIAN BRANCH

OF

THE INDIAN MEDICAL ASSOCIATION

VOL. XIV]

JUNE 1948

[No. 12

A REVIEW OF 100 CASES OF CIRRHOSIS OF THE LIVER

BY

DR. K. I. VYTHILINGAM, M.D.,
C. M. College, Vellore.

Here is a review of one hundred cases of cirrhosis of the liver which were treated in the Medical Department of the Medical College Hospital in the year 1946-47. The typical picture of chronic disease of liver is a man between 30 and 40 years, with pinched features and emaciated body. He is pallid and listless, skin dry and inelastic, gums pale and spongy. Most noticeable on examination is his prominent abdomen with distended veins. There is free fluid in the abdominal cavity. Liver is hard and may or may not be enlarged; but usually demonstrable on deep breathing. The patient usually gives a history of abdominal discomfort for 2 or 3 years or symptoms of dyspepsia or attacks of fever with chills.

The milder form is seen in a patient, not too well nourished, who has the complaint of abdominal distension, dyspepsia and dyspnoea after a full meal. On examination we find a full abdomen due to

1. distension of the bowels.
2. enlargement of the liver and spleen.
3. presence of a small amount of free fluid in the peritoneal cavity; no signs of cardiac or renal affection. Past history contains a reference to

"Jaundice" six months ago or fever with chills for 2 years or repeated attacks of upper respiratory infection. In these two types of cases one usually finds signs of malnutrition. The cardinal points in diagnosis are straight forward.

- (1) abdominal distension with liver and spleen enlarged and hard.
- (2) Fluid is present in most of the cases.
- (3) No pathology demonstrable in cardiac or renal system.
- (4) History of some past illness and deficient diet which have insulted the liver. (Deficient diet will be described later.)

On analysis of the hundred cases: The patients were all adults, both male and female equally represented. The age limit varied from 20-55 years, the greatest number being between the age group of 30 and 40. There was no seasonal influence. We have had a few epidemics of Infective Hepatitis with definite history of fever and chills. Occupation did not in our case form an etiological factor. Our women patients were housewives and our men were either petty merchants or poor labourers and cultivators. There were about 8 from the better class. It is

interesting to note that in 1931 Brugsch¹ noted a high incidence in students and domestics benign and serious types of liver disease. He thought that malnutrition might have been the supreme factor in his series and we also found malnutrition as a common factor in our cases.

Another common factor in many of the cases was the history of infection or of a toxin of some nature. Analysis of the etiological factors influencing our cases is as follows:—

1. Hapatitis—Infective or toxic	26 cases
2. Malaria—	20 "
3. Deficiency disease	14 "
4. Infection or toxic condition of upper respiratory tract or gastro intestinal system	13 "
5. Toxaemia of pregnancy	8 "
6. Idopathic	4 "
7. Alcohol	4 "
8. Nephritis	4 "
9. Syphilis	4 "
10. Drugs	3 "

Casual-inspection of the above suggest that in this series, the prime etiological factors are infective hepatitis and malaria. However the presence of malnutrition could be traced in nearly every history. Nor did any single factor operate in any of these cases. There were always multiple factors underlying the disease.

Malaria causes² hepatic injury of focal necrotic type and disturbances in pigment metabolism. It cannot be the sole factor in the production of cirrhosis of liver. Besides the focal necrosis of liver, most if not all cases of malaria, show anaemia. The disease presents a complex—Character in affecting the liver cells:—

Toxins causing hepatitis and deficient nutrition add further injury or make the cells more vulnerable to toxins. Hughs 1937 working in India concluded that repeated attacks of malaria result

in fatty infiltration and sclerosis. Tirumoorthy and Radha Krishnan have stated that malaria may be an important predisposing causal factor.

Infection other than malaria as one of the causative agents.

26 of our cases had a definite history of attacks of infective hepatitis. Three of the whole series showed a definite history of attacks of frequent colds. It is a known fact that coryza interferes with the normal metabolism of liver—*Icterus vernalis*³.

The pathology in these cases is that the columns of liver cells are inflamed and swollen. Pressure necrosis with circulatory impediment follows. As a result malnutrition of the cells, fatty infiltration and cirrhosis. Bacterial infection may intensify the activity of substances ordinarily not toxic or non toxic in small doses.

Most of the cases gave a history of gastro-intestinal upset, as diarrhoea, anorexia, dyspepsia and feeling of ill-health for some months before symptoms of cirrhosis developed. They also showed other symptoms of an avitaminosis or a sprue-like syndrome. Toxins and deficiency in diet must be the causative factor. (Mention Vit. B.)

Boix in 1897 summarised⁴ the experimental data, upon which the concept of chronic liver injury resulting from poisonous products derived from intestinal fermentation was based. Among these substances are enumerated butyric, lactic, valerianic and acetic acids, *Bacillus coli* toxin has also been incriminated. More recently Eppinger (1937) working on animals has incriminated various allyl compounds derived from intestinal tract in the production of "Serous hepatitis". Studies in this direction fail to illuminate the nature of the disturbance.

Alcohol was the primary factor in four of these cases. Perhaps the liver damage was due to the lipophylic

action of alcohol producing fatty liver which may go on to cirrhosis. Their daily intake was about 6-8 oz. per day brandy, arrack etc.

In all these cases *Nutrition* played a definite and an important role. The nutrition was definitely deficient in quality or there was a conditioned deficiency as described under malaria. One could not believe the appalling poverty of intake of milk and its products among these patients. The animal proteins too were of very limited quantity.

The present trend of opinion is that cirrhosis is a deficiency disease which may be corrected by proper dietary management. Evidence favouring this view-point lies in the fact that in many instances the outstanding symptoms resemble those encountered in nutritional disorder e.g. hypoproteinaemia with ascitis, Macro or Normocytic anaemia and in acute stages Neurological symptoms such as delirium, coma and encephalopathic states of acute deficiency of Thiamin and Nicotinic acid. Experimentally it has been proved that animals fed on a few protein high fat diet developed cirrhosis of the liver⁵. The addition of choline and cystine to this diet prevented the development of cirrhosis. Cystine without choline was found to aggravate the liver damage indicating that a substance otherwise beneficial in a well balanced diet might act as a poison to a body deficient in another essential factor.

These experiments have really influenced the line of treatment and improved the prognosis in cases of cirrhosis of liver. Bollman and Mann (1936) have experimented with diets and found:—

1. that on high fat diet animals died on intake of C.T.C. within 3 weeks.
2. on high protein diet and C.T.C. the animals died after 3 months or developed ascitis.

3. on high carbohydrate diet and C.T.C. the animals were alive after 3 months.

In 1943 Bollman found the protective values of diet in animals as:—

Carbohydrate	205
Protein	104
Fat	59 (comparative values)

Witts⁶ in his article on Dietary factors in liver disease has stressed the importance of diet. Protein defective diet usually produces fatty infiltration of liver, which if not corrected, results in cirrhosis of liver. This fatty infiltration could be prevented by feeding the animals with pancreas or lecithin or choline or lipocasi.

Low protein diet produces fatty infiltration and sulphur containing amino-acids such as Methionine and cystine are very effective in preventing fatty changes. When these substances are lacking, the body is unable to manufacture lecithin which is required for the transport of fat and thus fat accumulates in the liver.

It has also been proved that high carbohydrate diet protects liver and spares the liver protein. It delays the protein disintegration and spares the glucogenic amino-acids and renders these amino-acids available for synthesis into new liver protein. A high carbohydrate diet reduces the lipid content of the liver and the susceptibility to liver injury. It offers glucose for glycuronic acid used in detoxification.

Carbohydrate diet is rich in calcium and calcium diminishes the symptoms of liver disease by neutralising the guanidine products which lead to hypoglycaemia and circulatory failure.

In conclusion one can say "that lipotropic factors such as choline and lecithin and the thio-amino-acids are very essential for the liver. Excessive intake of fat is harmful unless it is

balanced by an intake of lipotropic factors. A high carbohydrate diet will spare the reserve stores of protein. Proteins supply the essential amino-acids such as Methionine and cystine. These are contained in meat and meat extracts. Samson (1930) with his experiments on animals found that sulphur containing amino-acids contained in meat and meat extracts are harmful in acute and chronic liver diseases. Milk proteins which are also a rich source of thio-amino-acids are found to be innocuous. Lecithin and choline are present in most animal and plant tissues. When lipotropic factors are absent fat transport comes to a stand still. Fat begins to accumulate in the liver cells which later undergo pressure necrosis and portal fibrosis. In addition it accentuates the effects of those toxic substances which are more soluble in fat than in water."

In this series of 100 cases nearly all the patients except a few were emaciated and had some history of infection of toxic condition prior to the present illness. Some had infective hepatitis, some pregnancy toxæmia, others of taking arsenic and some gastrointestinal upset. Thus we found multiple factors influenced the onset and progress of the disease.

Pathogenesis To have a clear idea of the pathological changes in the liver let me go over the anatomy and physiology of the liver. Hepatom the anatomical unit of the liver is complex in its design when compared to Nephron the anatomical unit of kidney. Each liver lobule contains all the elements of the liver.

In human beings the liver lobule assumes a hexagonal form $\frac{1}{2}$ to 2 mm. in diameter. The lobules are pressed one against the other. Glissons capsule is a sheath of cellular tissue containing hepatic ducts, portal vein, hepatic arteries, lymphatics and nerves. It is really the basis of the vascular architecture of liver. It is to the liver what

pia mater is to the brain. The interlobular connective tissue is sparse. The portal canals originate in the transverse fissure and may be traced throughout the liver substance and contain the Glissons capsule with all its contents. No portion of the hepatic tissue is at a greater distance from one of these canals than $\frac{1}{30}$ inch. Thus an even distribution of blood is insured to each individual part of the liver. The connective tissue acts as a scaffolding for the portal vein, hepatic artery and bile ducts into the liver and from there spreads out between the lobules. The main portion of the liver parenchyma is supplied by mixed arterial and venous blood.

The capillary net work comprises approximately 50% of the entire liver volume. The blood volume is about 35% of the entire weight of the organ.

The liver lobule is composed of a labyrinth of cells arranged in columns separated by anastomosing sinusoids. Diagrammatically the lobule may be considered as made up of a series of radiating tubular glands shaped like test-tubes with closed ends pointing towards the centre of the lobule. The cells are polygonal in shape and have one large round nucleus. The cytoplasm of the liver cell presents a variable appearance which reflects to some extent the functional state of the cell. Sometimes the cells may be almost completely filled with glycogen, while at other times these may give way to a large number of fat droplets. All the cells are endowed with the same functional capacities. Normal differences in cellular activities depend on the location of the cell in the lobule—The liver lobule may be divided into 2 major functional and an intermediate zones.

1. The acceptance zone (peripheral) where bilirubin is accepted by Kupffer cells and passed on into the underlying liver parenchyma for conversion and excretion.

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2. The intermediate zone—where bilirubin is rendered water soluble.

3. The excretion zone—central—where the water soluble bilirubin enters the bile canaliculi.

The pigment load is relatively greatest in the central zone cells as these cells are close to each other and the relative amount of blood available for removal of pigment is decreased.

Functions of the liver

1. Chologenesis—
2. Metabolism and Nutrition—dealing with assimilation and preparation of foodstuffs for distribution to the tissues.
3. Storage depot.

CHO Metabolism: Glycogen is formed by and stored in the liver. A damaged liver contains little glycogen. Thyroxin deglycogenates the liver and Vit. B. deficiency is associated with the reduction in glycogen content of liver. The liver has the power to make glycogen from fat or proteins—The adequate supply of CHO in the food reduces the need of liver for drawing on proteins as a source of sugar. This is known as the "protein sparing action of the CHO", and is of great importance in the normal mechanism.

Protein Metabolism—Liver not only stores protein but is also concerned in the formation of plasma proteins. It is an important station in the assembly line for the production of serum albumin from the ingested protein. Liver injury interferes with the production and the upkeep of normal balance of albumin and globulin and fibrinogen and prothrombin formation.

Aminoacid metabolism—Liver is the most important site of the deaminization of aminoacids and urea synthesis, and is probably the chief site of the intermediary metabolism of those aminoacids with specific dynamic action.

Fat metabolism:—Liver does not play the essential role in the metabolism of fats that it exercises in the physiology of CHO and protein. Liver primarily desaturates the fat to make it available for use as fuel and as necessary material for the formation of cell membranes and other essential elements of cell structure. Fat deposition in the liver appears to be influenced by at least three extra hepatic factors besides diet and starvations:—

1. Insulin deficiency
2. Lipodaic deficiency
3. Pituitary activity.

Other functions

1. **Protective functions**—Many toxic products are rendered non toxic by the conjugation mechanism. Detoxification may also be performed by the decomposition mechanism eg. ChCl_3 and Iodoform and by scavenger action through the medium of Kupffer stellate system.

2. The blood volume is regulated by the action of liver as a "blood depot."

3. **Function of liver in water metabolism:**—Liver acts as a reservoir for water in a 2 fold manner:—a. One mechanical valve mechanism in the hepatic veins regulates blood concentration by storing water in the liver or inducing diuresis indirectly (Gerritzen). b. Pick has suggested that a hepatic hormone regulates the fluid content of the tissues.

4. The liver regulates the ionic equilibrium of the body. It plays an important role in iron, copper and potassium metabolism.

5. **Liver in blood formation and coagulation:**—It is a rich source of anti anaemic principle. I have already mentioned the formation of plasma proteins by liver. Liver is the main source of fibrinogen in the body and participates in the phenomenon of blood coagulation. In diseases involving the bone marrow, spleen and lymph nodes, the liver often resumes its prenatal function of blood formation.

6. Liver possesses a remarkable capacity to restore itself beyond that of any other organ.

7. *Liver functions and Vitamins:*—The liver stores Vit. A, Vit. C and D and converts carotene into Vit. A. In generalised hepatic damage the Vitamin storage is diminished. Vit. A deficiency producing Xerophthalmia, Keratomalacia and hemeralopia, Vit. C. def. producing a haemorrhagic tendency, Vit. D. def.—osteoporesis and rickets. Vit. B and K have their full effect only in cases of normal hepatic tissue.

If this important organ is diseased all these functions are deranged making the prognosis grave. Chronic liver disease leads to induration of the liver. To the clinician the term cirrhosis means a chronic, progressive, destructive lesion of the liver combined with reparative activity and contraction on the part of connective tissue. This contraction may lead to obstruction of the bile ducts causing more or less jaundice and to interference with the flow of blood through the blood vessels resulting in portal congestion and ascites.

With toxic or infective conditions the liver cells show injury. The lesion in the liver being either zonal or centrilobular necrosis or acute yellow atrophy depending on the dosage and quality of the toxin and the vulnerability of the liver cells. The inflamed cells are swollen and cause increased pressure within the Glissons capsule. As a result one finds that the circulation through the liver is impeded. If the time given to this is prolonged and if in addition, the blood is lacking in protective factor massive necrosis results.

In the mild type of cases the degenerated cells are replaced by fibrous tissue and repeated exposures to toxin result in diffuse hepatic fibrosis. In some cases massive necrosis and nodular hyperplasia will be the result. Restriction

of the intrahepatic circulation is an important factor in producing a deficiency of the available protective factors in the blood. This may be regarded as conditioned deficiency.

When diet is deficient in protective factors, such as sulphur containing amino-acids, over a long time or if lipotropic factors are lacking, the liver shows fatty infiltration going on to fine fibrosis. If deficiency is of severe nature, after a varying period of latency the whole organ is affected; slight deficiency usually affects the left lobe only. Even in health the left lobe is exposed, to a lower concentration of protective factor; hence it is the left lobe which suffers most. Himsworth has given a very detailed account of hepatitis with cirrhosis of toxic and dietary origin and calls them toxipathic and trophopathic cirrhosis.

An increased metabolic rate may have the same effect of depleting the liver of its nutritive factors by increasing the general bodily requirements. It is also possible that some poisons combine with the essential amino-acids and render them unutilisable.

Thus it is clear when we deal with cirrhosis of liver we are faced with many problems; the prognosis is not very encouraging and the treatment is difficult.

Management of these cases:

1. Blood—1. Hb. R. B. C.—W. B. C. (Total and Diff. Count)
2. Prothrombin time done on a few cases. Definitely prolonged
3. Plasma proteins 6—4 mgms.
4. Blood Kahn
5. Blood urea—low
6. C.C.F. test on a few cases positive in all
7. Hippuric acid test on some cases
8. E.S.R. Varied.

Diminished function was recorded in the advanced cases only.

2. Urine examination to rule out kidney disease

Blood pressure was on a low range in all cases 90/60 or 80/60. There was no one with gross cardiovascular or renal disease. All these 100 cases showed definite signs of ascitis. Paracentesis was not performed on 28 cases. Four of these died with symptoms of acute liver damage and revealed a haemorrhagic fatty liver.

The remaining 72 cases had one to several paracentesis.

The cases with splenic enlargement had as a routine—one full course of Quinine or Mepacrine. Quinine Grs. V tds. or Grs. V Gm. daily for 10 days. Mepacrine 0.1 Gm. tds. for 10 days. Majority of cases had calcium of gluconate with glucose given I.V. for over a fortnight. 29 cases had in addition choline. Choline was definitely given to the patients where better prognosis was expected. The results are not encouraging. A beneficial effect was seen in 11 patients.

Anæmia corrected either by blood transfusion, or liver extract or folic acid. Protein hydrolysate (Cæsin) 2 capsules three to four times a day given for some patients—some patients found it difficult to take this.

As a routine all the patients were put on milk diet—milk up to 5 pts. per day. Or its equivalent as milk products as butter milk or curds without the butter. Rice or wheat gruel was allowed freely. Meat and meat extracts and highly spiced articles were forbidden. Patients were allowed plenty of vegetables, fruits; marmite and Vit. A concentrates.

Dieting was very difficult only in a few cases.

As far as possible mercurial diuretics were limited to those cases where repeated paracentesis were needed.

Conclusion

I have summerised the results of our treatment. It will be seen that the corner stones of it are the treatment of any infection at the time and a suitable diet. The follow up of these cases I cannot offer at present. It is obvious that of the poor will relapse due to the inadequate diet plus the possibility of renewed infection. We may expect the incidence of hepatic cirrhosis to fall when the common people have a better income and more intelligent knowledge of food.

You may ask how we diagnose the earliest cases of liver damage. Tests of liver function are negative for such cases. However dyspepsia anorexia, intestinal flatulence of unexplained origin should never be neglected, as these may be signals of liver upset. A diet with sufficient protective material will save such a liver. Similarly chronic intestinal infections as recurrent diarrhoea and the so called dysenteries should also be treated with due respect because of the possibility of possible latent liver damage. I have always wondered whether the indiscriminate use of C. T. C. and other toxic drugs in the already debilitated patients does not affect the liver and cause injury.

According to the chart the prognosis is not very encouraging. Though there was definite improvement in 47 cases, only 20 cases showed very definite improvement (class A). They were discharged clinically cured. 7 of them attend the O. P. E. rather regularly, 18 to 6 months. I have no doubt the other 13 are still in fairly good health. As long as their diet contains the protective factors and they are free from repeated attacks of chronic dysentery or malaria etc. they keep fit.

Of the rest (Class B) some have come back to us with a fully developed picture of cirrhosis of liver. Follow up of the rest has been very difficult. The rest 53 went home moribund or

died in the hospital. Some developed intractable diarrhoea. Some chokemia—and a few tuberculosis of the lung with extreme emaciation.

In spite of heavy mortality I feel, we should aim at an early diagnosis and fortify the liver by adequate diet and eradicate any form of toxic agent. Liver function tests do not help us as

these show abnormality, only when a great deal of damage is done to the liver. Of all the tests plasma protein estimation seems to be the best one to show evidence of early dysfunction of the liver.

Plasma proteins may be 6 gm.—but albumin globulin ratio shows definite alteration.

Tropical Cirrhosis and Alcoholic Cirrhosis are due to deficient intake of Lipotropic factors but in both disorders a toxic factor is still suspected

Methionine and cystine are of great value because of their composition. Methionine contains both Methyl and Sulphydryl groups and Cystine contains Sulphydryl group only. Methionine is the key substance in the metabolism of liver. The Sulphydryl groups are attached to a vital enzyme system in the liver.

Toxic products as Chel. and Arsenic disturb the enzyme systems—presumably by combining or neutralizing the Sulphydryl group. Protein starvation depletes the liver of these sulphur rich compounds.

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1. Lichtman—Diseases of the Liver : P. 344
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3. do. do. : P. 347
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8. Himsworth and Glym. Lancet, Apr. 8, 1944 : P. 457

Other References :

- Beattie and Herbert B. M. J. Feb. 12, 1944 : P. 209
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Greene—Farrell—Apr. 4, 1940 : P. 864

Minimal requirements of Protein hydrolysate for maintenance of Nitr. equilibrium to be 0.4—0.7 gr. per kgm. body weight.

Choline 700 mgm. for 10 st. man.

28—49 gm.

1 mg. per 100 gm. body weight.

Announcement

The Sixth Session of the Australasian Medical Congress will be held in August 1948 in Perth, Western Australia. Dr. D.M. McWhae., C.M.G., C.B.E., V.D., is the President and Dr. H. M. Trethowan is the Honorary General Secretary.

Members of the Indian Medical Association who are likely to be in Australia about that time can attend the congress on behalf of the Association and they are requested to intimate the General Secretary, Indian Medical Association, Calcutta about the same and obtain necessary credentials.

FORBIDDEN TALES TOLD AT FRINGES

BY

Lieut. Col. P. V. KARAMCHANDANI, M.B.B.S., F.R.C.P.,

Late I.M.S. District Medical Officer, Bellary.

What is the role of General Practitioner in relation to gynaecology? This is a burning question and every general practitioner must familiarise himself with at least the commonest gynaecological emergencies. How many patients report at the Government Headquarters Hospitals, alas but too late, simply because the general practitioner is ignorant of these emergencies! I propose dealing with these in this article. The causes of this ignorance are not far to seek. It is partly apathy on the part of general practitioner, partly ignorance of normal functions of female generative organs and partly lack of knowledge of pelvic pathology. It is interesting to note the views held say three to four centuries ago. This is what John Bannister wrote in 1578 in the "History of Man". "Because I am from the beginning persuaded that, by lifting the veil of nature's secrets in women's shape, I shall commit more indecency against the office of decorum than yield needful instruction of the profit of common sort, I do here rest" and he finished the chapter on gynaecology there.

The important pressing problems which face the general practitioner in these regions are:—

1. Haemorrhage
2. Abdominal pain
3. Vulval pruritus
4. Leucorrhoea.

I propose taking each one separately.

1. Haemorrhage.

Three questions should be asked.

(i) Is she an elderly person? What is her age?

(ii) If not elderly person, is bleeding inter-periodic and irregular?

(iii) Is it periodic and regular bleeding?

(i) *Haemorrhage in an elderly person (menopausal).*

This is an important sign of cervical or uterine carcinoma.

It may occur as:

(a) slight hæmorrhage after menopause

(b) bleeding between periods in a woman approaching menopause.

(c) excessive loss at the time of period, starting as a new symptom.

Time and again cases keep on coming to the hospitals who have advanced to inoperable carcinomata. Their presenting symptom is bleeding. I had cases who bled so profusely after P.V. examination that they had to be plugged. This kind of hæmorrhage can be due to simple causes but take no risks. Consult the specialist.

(ii) *Younger person, interperiodic and irregular bleeding.*

An officer's cook suddenly took ill. After five days a message was sent from her house that she had bled so profusely that she was dying. Bimanual examination revealed a uterine fibroid. She was removed to the hospital and put on Coagulen Ciba, Calcium and Progesterone. This stopped the bleeding. Subsequently she was put on Leutocyclin 10 mgm: alternate day parenterally. Not only has her bleeding been controlled but the fibroma has commenced to shrink. It is quite possible that the tumour which was

of the size of a small melon may disappear entirely. Progesterone which exerts the most progestational action also exerts the most antifibrogenic one. Progesterone has very small androgenic potency. It may be remembered that uterine fibroids are more readily prevented than other abdominal fibroids and the day may not be far off when they will change hands from the surgeon to the physician.

Other common cause is abortion. A young woman aged 25 years wife of a District Officer with a delayed period of 10 days duration started bleeding. She was treated by several doctors in turn, for 25 days with neogynergen, ergot, rest in bed etc. Ultimately I was called in. Incomplete abortion was diagnosed. She was subjected to an operation. The cervix was already so dilated that the biggest size sound could go in easily. Curetting was done. She became well in 5 days.

Other causes are polypus of cervix, erosion of cervix, endometritis and rarely carcinoma.

(iii) *Periodic and regular bleeding in a young person (menorrhagia).*

Whereas irregular losses are more likely to be due to gross pathological lesions, menorrhagia without obvious cause during periods is due to anaemia and weakness. The old Indian custom of subjecting woman to untouchability during the course of first three days of menses was based on the principle of complete rest. Therefore in these cases rest should be prescribed with regulation of bowels, calcium and Neogynergen. A general tonic with iron, Progesterone and thyroid are other useful remedies. Oestrin is contraindicated as it accentuates bleeding. Operative treatment is advisable when the above fail.

2. *Abdominal pain.*

Abdominal pain presenting as an acute abdominal emergency, with his-

tory of a missed period, accompanied by irregular bleeding with one sided pelvic discomfort is probably ectopic gestation. Other causes of bleeding enumerated above have to be kept in mind. The early diagnosis is of utmost importance because it means a question of life and death. Operation is the only sure, safe, and easy remedy.

Pyosalpinx may be confounded with appendicitis. But, whereas pyrexia is the first symptom in pyosalpinx, it is the last in appendicitis. Vomiting is a late phenomenon in pyosalpinx, whereas general abdominal pain settling down in right iliac fossa with tenderness over McBurney's point followed by vomiting is what happens in acute appendix. P. V. examination usually settles the diagnosis—though rare cases of pelvic and retrocaecal appendix may mask the picture for a while.

Ovarian cyst or fibroid when infected, bleeding, twisted or pressed up may also cause abdominal pain.

3. *Vulval pruritus.*

Intense pruritus affecting labia majora and minora in an elderly woman approaching menopause should raise the suspicion of cancer. It is easy to cure it at this stage, because the onward march from first stage of hypertrophy (of epithelium) to atrophy (from epithelial desquamation) and then fissuring and finally cancer should not be allowed to proceed. The general practitioner has to be on the look out and stop it from going into the advanced stages.

Treatment consists in counteracting the precipitating factors viz. lack of cleanliness born of modesty, glycosuria, and attention to vaginal irritating discharge. But the final answer lies in operation and removal of the affected area. Because it is not radio sensitive, X-ray treatment is useless and waste of time.

4. *Leucorrhoea.*

This may be

1. Vaginal
2. Cervical (endocervicitis).
3. Uterine (endometritis).

1. Vaginal may be (a) acute when discharge is profuse, yellow or greenish with dysuria. There are local signs of inflammation. Treatment consists in treating the cause (Gonorrhoea, trauma or sepsis from adjacent spread) with palliative rest, sedation, douches and hot hip baths. Attention to bowels is a routine, not to be forgotten.

(b) When it is chronic vaginitis, discharge is thick, continuous and opaque. Local examination and history reveals the cause i.e. antecedent acute, constitutional, strumous cause, traumata or a neoplasm. Treatment depends on the cause with local applications.

2. Cervical.

The discharge is constant and consists of glairy material like white of egg. Erosion is a common cause but cancer is to be borne in mind. Whereas erosion is smooth velvety, friable, bleeding slightly; cancer is rough, nodular, friable and bleeds easily. Age is not much guide, because latter has occurred in patients in twenties.

Treatment consists of local applications of silver nitrate (gr. 30 to 31) by

Playfair's probe protected by a Ferguson speculum, cataphoresis, cauterization, hot douches, ichthyol (10% in glycerine) tampons.

3. Uterine (endometritis).

The history is that discharge comes in gushes when patient rises or walks about. Bimanually uterus may be enlarged, verted, while cervix hypertrophied and inflamed. There is history of menorrhagia, dysmenorrhoeas, general pelvic discomfort, perhaps recurrent abortions or sterility. Curettage should be performed and scraping examined.

The treatment consists in tackling the cause viz. (1) bacterial invasion (septic, specific or traumatic—retained products after labour) or (2) uterine congestion, consequent on displacement, pressure from without, constipation and excessive coitus.

Treatment depends upon the cause. Dilatation and curetting commonly called D & C with application inside of medicaments (Tinct. iodine, penicillin etc.) hygienic and general treatment form an important plank.

Treatment which I prescribe consists of cure of constipation (Karamchandani 1932) calcium, multivit: (B complex) phospholecithin and Bellargol.

I have successfully treated cases on the last line.

Reference:—

P. V. Karamchandani, 1932.
Antiseptic June, 1932.

THE GENERAL PRACTITIONER

BY

I. G. K. MENON,

Pasteur Institute, Coonoor.

It is now more than a few years since by one of those unexpected turns of Fate I turned my back upon the busy turmoil and the crowded hours of general practice and branched off into the calm and cloistered atmosphere of a great Laboratory. When I look back in retrospect on those eleven years spent in general practice, I feel amazed at how little the public knows of the difficulties and drawbacks, the disappointments and the trials, of that unknown warrior of medicine—the General Practitioner. I would be the very last person to deny the points on the credit side; a more or less independent existence; work that is always interesting, in fact almost absorbing; a respectable position in the life of the community and in public estimate; freedom from want and poverty—in fact, very often he is the possessor of many of the amenities and comforts of a pleasant existence. He gets the opportunity of coming into close touch with every class of society. Too often, indeed, he is the trusted confidant into whose sympathetic ears are poured, sure of the veil of professional secrecy, the tales of woe of not only the harassed lady of the house who is at her climateric and of the busy pater familias whose arteries are not what they were, but also the tragic sorrows and problems of the younger members of the households; not to speak of those of the rheumatoid maidservant and of the asthmatic cook. In fact, here perhaps is the key to many of his troubles. Upon his broad shoulders rest not only the woes of his patients, mental, physical and otherwise; upon them falls the task of combating the tragic results of the poverty and ignorance, of the pride and the prejudice, the dangerous half

knowledge of the public—where Govts. and leaders have failed, he has to attempt the impossible: to fight alone the many drawbacks and evils of the whole social system.

Take for example such an apparently simple problem as transport. In spite of the progress of the motor car and bus, it is still far too common for a doctor to start a journey by car, soon have to change to a motor-boat and finish the last lap to the patient's house on foot over a distance of three to four miles, along the sucking sands of a seashore in a monsoon month. I still remember vividly a sullen evening when I had to go across the Harbour Channel in a three seat boat. The white crested waves looked as if they were coming upon our low boat from a height of several feet. And as the boat started to gather the water washing in, the old boatman deputed his young assistant to do the bailing out, his own solitary strength and aged experience being deemed sufficient to carry us across the angry waves to safety. Attempting to board a ship in a rolling midsea by means of a sinuous rope ladder cannot be described as the peaceful progress of a doctor to see his patient. As an anticlimax, scores of times, I have been halted by an unexpected stretch of water a few yards across and only a foot or so deep; but pants, shoes and socks are hardly the type of dress for this and though I have been offered, in all earnestness, the doubtful privilege and pleasure of being carried across on the back of my not so strong looking guide, grotesque visions of Sindbad the Sailor with the old Man of the Sea on his back, and on the other hand, of myself

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THE GENERAL PRACTITIONER

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thrown into the stream by my guide stepping into a pot-hole, all these have so far prevented me from sampling this form of transport so reminiscent of childhood days.

Poverty is one of those terrible factors which is hardly ever at a distance from the General Practitioner. For example, a factory worker—age: about forty—occupation: trimming the ends of coirmats, Pay: Rs. 56/—in daily wages. Family: wife and three children. Condition on examination: Tuberculosis of the lungs. What do you do? Sanatoria are few and far, their waiting lists imposing. You advise rest, cod liver oil, eggs, so on and so forth. He then puts the two alternatives squarely before you: He can continue to work eight hours a day, at a dusty occupation, get the wages and perhaps eat something more than he does and take a few medicines and still see his wife and children in the house and die gradually; or he can stop working, go into a good imitation of starvation, even if his wife works as an unskilled labourer, and die quicker. Which do you prefer? The best you can do is to keep silent and look uncomfortable and guilty for the sins of the community. Well, the case progresses to its tragic end, three months more he works, six months later, he dies of an acute haemorrhage, a month afterwards you see the widow forced to go to the same factory as an unskilled worker on a few annas a day to keep body and soul together, two years later you see two of the children in the O.P. Department of the Hospital with tuberculosis of the glands.

Turn to another factor now—Ignorance. Against the parents', relatives' and neighbours' opinion, you contrive to get a child vaccinated. Three weeks later it dies of tetanus. They blame you. You enquire and find that despite instructions about cleanliness, they applied raw cow-dung on the vaccination area. Or again with infinite

trouble, you have pulled a young man through a difficult typhoid infection. In the convalescence the anxious mother breaks down to the entreaties of the patient, gives him a square meal and the next you see of it is a perforation and death! And you may get part of the credit for this from at least some sections of the public: Or again you advise immediate operation in a case of strangulated hernia. While you get the hospital authorities informed and ready, the astrologer is consulted, he says there is every indication that the patient is to die by the knife. The operation is held off and the astrologer is proved wrong, the patient dies in his bed without the helpful knife! In many places and communities, the reputation of many a doctor and surgeon has been made or marred by astrologers and soothsayers. No less potent for danger are religious and social trends. I well remember the doctor who got into trouble by prescribing hog's stomach extract to an old orthodox Muhamadan and the case of the orthodox Hindu lady who in the midst of convalescence from pneumonia heard that she had been given beef and iron wine and straightaway took a cold water bath. There was again a young mother who lost her life because craniotomy was not allowed on the hydrocephalic foetus on religious grounds. You may say—this is all ignorance, superstition. What is wanted is education. I am not too sure that's all about it. When you think that hundreds of educated are to-day losing their sleep on such advertisement scares as "Do your friends avoid you? Then it is halitosis!" or B.O. for a change, or that thousands feel that "when trifles worry you, take Dash Dash", "of without blood Beans and liver lumps, your bowels will never get that Kruschen feeling," education as we see it is not enough. I have often felt shocked by the change that has come over some bright, happy young mothers and otherwise normal men by the time

they go around a Nutrition Exhibition. They come out with a dazed look of despair in their long-drawn faces, aghast at the vitamins they have destroyed and the food factors they have cut out in their gross ignorance, from the foods of themselves and what is more, their innocent children. No repentant sinner who has found light and religion late in life is so sunk in self abasement or self accusation as these people. Scared by pictures of Mellanby's rickety puppies, of an osteomalacia pelvis in real life and rows of staggering figures, they descend the next day on their kitchens with disastrous results. Even in the matter of getting treated by quacks I completely exclude here the tolerably trained men in any system of treatment—the educated rich are greater offenders than even the poor. The dismissed Bank Clerk who blossoms out into a chronic disease specialist, the Himalayan swindler who treats only sexual debility, the Retired railway employee who is very good at treating hysteria—all these people, mind you, are being kept in a state of affluence by your educated rich and not the illiterate poor.

And now I come to some of the unpleasant jobs which somebody must do. You see a case of high fever in a rich merchant's house with an enlarged gland in the groin. Plague has been reported in a neighbouring town. The question of informing the Public Health Department arises. You are far from microscopes and Laboratories. The merchant points out the serious loss to his godown and business. You temporize and decide to wait till next day. In the night the man dies. The Public Health people point the finger of scorn and now what is worse, notice of prosecution at you for suppressing information. But then the other side. Despite the merchant and his pleas, you inform them. They come and start their measures. Next day the

temperature of the patient is normal, it is only a tubercular gland. Your stock in the market crashes and all the congratulations or diplomas of the Public Health Department will not give you back that lost practice. On questions of certificates of fitness and illness, the fine question whether the man is a malingerer or a victim, many are such unpleasant problems in which great reputations and practices have been wrecked. Attending on the last stages of a person dying of an incurable disease is another of those necessary evils. I remember a lady—cancer of the breast rich but a cripple from girlhood operated by one expert for removal of tumour, another for incision of glands, finished radium and deep X-Ray—finally had to be dressed for the terrible wounds which broke out. The daily dressing and the nightly morphia—Her questions on the justice of Providence, Law of Karma and so on till Death came, a welcome release, to the suffering martyr.

And that takes me to funerals—a point of frequent discussion as to whether the doctor should or should not attend funerals. There are some who avoid this at all costs; yet others daring enough, who suggest that as they are not responsible or at least do not hold themselves to be responsible for death, why not attend? Of course complications do arise occasionally as for instance at the funeral of a boy who died of acute dysentery. The doctor who was called in on the last day and gave an injection of some stimulant was paying a courtesy visit. And then suddenly he recognised in the welter of words making up the funeral song the word 'injection' and to his horror heard the grandmother emphasising "It was only after the old sinner gave that injection that my darling died." Realising that discretion was the better part of valour, he beat a hasty retreat before there was any mob uprising based on this well stressed chorus.

Let us now for a moment turn from these external forces and agencies and consider his personal surroundings. The General Practitioner is far too often the hand that ploughs a lonely furrow far removed indeed from the familiar scenes and activities of his college days and far from their help—the libraries and laboratories, the lecture halls and dissection rooms and the crowded wards and busy operation theatres of his Alma Mater. Medical reference books are notoriously costly and have an unpleasant way of becoming out-of-date even before you read through them once. Post graduate refresher courses are not only not available; even if they are, he has not the time for them. And in this state of intellectual isolation like a Robinson Crusoe, he is called upon to make vital decisions on matters of life and death with split second timing. Nothing is so characteristic of the wide gulf that yawns between the teaching and performance as the conduct of a labour case by him as he is and as he was. The wretched low thatched hut, the smoky illumination of a Hurricane lamp with a broken glass, the crowded floor, the 20" high maternity cot where a destitute primipara is lying wondering whether this is really death, the old lady assistant, innocent of aseptic or anti-septic principles—all these strange and primitive surroundings of a village forceps case make a very glaring contrast to his last case in the labour ward of his college—bright with electric lights, glittering with its chromium and glass furniture and instruments, the trim and efficient nurses, almost high priestesses of the cult of antiseptic and aseptic ritual and last but not least, the comfortable feeling of having at your back the services of some of the best specialists in the field of midwifery to fall back upon if anything untoward supervenes. Is it not indeed a far cry from one to the other? And to make matters worse, he is really and truly in the

worst sense of the word a "full time" man who is, perhaps not working but is yet on duty and never free, for twenty four hours a day, seven days a week and fifty two weeks in a year. Early in my professional career, I used to attempt to have some house parties. I remember this came to an end with one party. We were to meet at my house at 8 p. m., half dozen of my friends, including another doctor, the electrical engineer, the municipal chairman and so on. At 5 to 8 p. m. I got a call to go and catheterize an old patient with enlarged prostate. I hurried there and came back and then came another urgent call, this time to see a girl who according to the man who came to call me had fainted. I tried to back out of it, in deference to my guests, some of whom had already arrived. But my medical colleague objected, asked me not to stand on formality, and finish that one also. And so I went. One look was enough—the girl was dead for about two hours. With my mind concentrated on the party, I bolted back but at the gate, was detained by a well wisher who whispered to me "It is either a suicide or worse." I had never bothered about this aspect and being quite young and inexperienced in the ways of law, sent at once for my medical friend who had pushed me into this—a senior man. He came. To cut a long story short, by the time we collected the possible medico-legal requirements like motion and vomitus of the patient, took the available history and then ran the Police Sub-Inspector to earth, and informed him about this sudden death, and then returned to the irate guests and cold supper, it was 11-30 p. m. Suffice it to say that I have been never anxious again to play the host so often. This may not seem so serious a drawback; but the work interferes equally seriously with such primal requirements as leisure and exercise. In towns where the general dispensary hours are between 4 and 8 p. m., it is

classified as locally malignant tumours. They also cause considerable difficulty in breathing. During my experience as a specialist in the above hospital for a period of about 4 years, I had the opportunity of removing about six hundred benign growths from nose and naso-pharynx.

Coming to the treatment of malignant growths proper, majority of them were removed by snare some by scissors, and in all cases they were attended with severe and profuse hæmorrhages, both during and after the operation which were controlled by the usual hæmostatic measures like Calcium gluconate 10/10 c.c. i.v., Coagulen-ciba 5 to 10 c.c. i.m., hæmostatic serum 2 c.c. i.m., sometimes by Pituitrin 1 c.c. subcutaneously. In these cases in addition to these measures, ice packing over the nose and neck were also applied. In spite of complete removal there were recurrences which were also dealt with, by removal and then cauterisation by galvano cautery, under local, or general anaesthesia. In fact the ideal treatment in these cases would be to do Diathermy cauterisation of those places from which the tumour arose, under general anaesthesia using pure chloroform only for the anaesthesia, since ether is highly inflammable. Some of the tumour cases after the removal had to undergo deep X-Ray Therapy to the part.

Some of the tumours, not only occupy the nose and naso-pharynx but extend and occupy the maxillary antrum on the affected side and give a dense opacity in the X-Ray film when they are radio-graphed. The proper thing in the treatment of these cases will be to deal with the tumour in the nose first, then the naso-pharynx, and then the maxillary antrum. All of these give negative wassermann and kahn tests. A certain percentage of these growths exhibit ulceration over the surface of the growth sometimes present a cauliflower like growth. Now,

of all these cases the following three cases are worth-mentioning since they are very chronic, recurring after removal and cauteration, and they are still under my treatment except the last one.

CASE NO. 1. Patient X . . . a boy aged 14 years came to the out-patient department of the Erskine Hospital, Madura on 8.10.46 for difficulty in breathing through the right nostril. Local examination revealed a globular mass reddish white in colour of a fairly hard consistency, and a bit mobile. Right cheek was a bit bulging: Tumour bled easily on pulling. Blood for kahn was negative. Radiological examination revealed complete opacity of the right nostril and right maxillary antrum. Duration of the growth six months? History is that it began as a small nodule in the right nostril which gradually increased in size. As usual the routine tests like total R.B.C. count, W.B.C. count, differential count and H. B. percentage were done which are given below:—

R.B.C. 2.5 Millions per c.m.m.
W.B.C. 5800 per c.m.m.
Differential count: Polylorph 68%
Lymphocytes 24%
Monocyte 2%
Eosinophils 6%

Urine: Sugar—Nil. Albumin—Nil.

Since the general condition of the patient was poor, he was given one dozen injections of Liver extract (2 c.c. at a time i.m.) and 8 injections of Calcium Gluconate (each 10 c.c. 10%) i.v. A month after admission, during which period the patient was given the above mentioned injections, besides Mist. Ferriet Ammonium Citrate 1 oz., three times a day., Pulvis Calcium Lactate 10 grains three times a day, an attempt was made to remove the tumour, twice under local anaesthesia. At both sittings due to tremendous bleeding, the snare being unable to

cut through and the patient experiencing pain the attempt failed. In spite of ample local anaesthesia (the nostril packed with cotton wool soaked in 2% percaïn and adrenaline), the patient could not bear the pain and fainted. Hence a third attempt at removal was made under general anaesthesia (Chloroform: ether; 2:3 mixture), and a small mass for biopsy was removed. The piece removed was fibrous in structure and consistency. On this occasion also bleeding was a prominent feature which was controlled by the usual hæmostatic measures.

After a fortnight, about 50% of the growth was—cauterised by galvano cantery under general anaesthesia (using pure chloroform only). The patient was left alone for a fortnight and then the remaining growth was also cauterised. Still about 25% of the tumour was found to remain in the nose, (might have grown again?) and hence the patient was put on deep X-Ray treatment for about 2 months during which period he got 2 dozen exposures. The patient,—feeling much better and able to breathe through the right nostril, was sent home with the advice to come back and report after 3 months. He came after 3 months with the right nostril about half of it filled with the tumour again with complaints of difficulty in breathing. Biopsy report revealed "*Chondro Sarcoma*." Though for naked eye appearance it resembled a fibro sarcoma. The patient again got 2 dozen Deep X-Ray exposures, but the tumour grew as usual and I am thinking of removing it by extra nasal route.

CASE NO. 2. Patient Y . . . Hindu female aged 30 was admitted in the E.N.T. Ward of the above Hospital on 12-12-47 with swelling of the right cheek, and a tumour completely filling the right nostril and pushing the septum towards the left. The tumour was a bit hard to touch, bled easily. The patient complained of inability to breathe

through the right nostril, and occasionally attacks of bleeding from the right nostril, and headache on the right side. The tumour appeared, reddish white in colour was practically immobile even when it was manipulated. The routine investigations revealed the following:—

Blood for kahn—negative
R. B. C. 3.5 millions per c. m.m.
W. B. C. 7800 per c. m.m.
Differential count: Polymorph 65%
Lymphocytes 26%
Monocyte 1%
Eosinophils 8%
H. B. — 65%.

Urine: Sugar—Nil. Albumin—Nil.

Radiological examination revealed opacity in right nostril, and right Max. Antrum, boundaries of the Max. Antrum being hazy—suggestive of malignant tumour right nostril and antrum. X-Ray revealed erosion of the bony walls of the antrum. In this case there was not even enough space to do a diagnostic puncture of the right Max. Antrum. As in the previous case, attempts to remove under local, in 2 sittings proved futile due to tremendous bleeding, and the patient unable to bear the pain; hence a third attempt under general anaesthesia brought out a bit of the tumour and it was sent for Biopsy. Biopsy report is awaited. After a fortnight about 50% of the tumour was cauterised under general Anaesthesia (C. 2 E. 3 mixture).

After this operation the patient had severe reaction, whole of the right side of the face was swollen and complete closure of the right eye which got alright after a course of 5 lakhs of penicillin and enough Sulphanamide therapy. Then the right nostril had some space through which the patient was able to breathe to some extent. Now there being some space in the right nose, proof puncture of the right Max. Antrum was done under local anaesthesia which revealed some blood

and pus and some, granulation tissue in the discharge hence in the next sitting, the opening in the medial wall of the Max. Antrum was enlarged, and through which the antrum was curetted from the nostril, and enough of polypoid vegetations were removed. Again the patient developed severe reaction as before like high temperature, rapid pulse, severe pain swelling of the face and eye-lids with closure of the eye etc., again she was put on massive doses of penicillin, sulphanamide etc., and she got alright.

Let me conclude by narrating another interesting case:

CASE No. 3. Patient Z.... Hindu male aged 35 years referred to us

for admission and treatment from the American Mission Hospital, Madura. Patient was having profuse bleeding from a tumour in the left nostril whenever the tumour was touched; hence the tumour was removed completely under local in two sittings and at the third sitting the area from which it arose, and remnants of the tumour were cauterised under local by Galvanocautery. At each sitting the attempt was followed by severe bleeding which was controlled as usual. Then the patient was discharged. Now the patient is able to breathe freely through the left nostril and does not complain of any bleeding at any time. Biopsy report revealed "capillary angioma." Patient is instructed to report after a month.



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Cough
9. GURU CHILDREN TONIC

Dr. A. MATHURAM Sons, Trichinopoly, S. I.

June 1948]

ABSTRACTS FROM CURRENT MEDICAL LITERATURE

Early Ambulation after Abdominal Operations—*Extract from American Journal*—In 1932 Henry Ford, the famous motor magnate, greatly distressed his doctors at the "Ford Hospital", Detroit, when he insisted on being allowed to visit the closet a few hours after an abdominal operation. The 69 year old patient continued to get out of bed whenever he felt inclined to do so, throughout his ten-day stay at the hospital. Yet he had an uneventful and smooth restoration to normal health despite such wilful and unorthodox behaviour.

Today, rising within a few hours instead of days or weeks as was previously the custom, after abdominal operations and child birth is the main feature of the new convalescent care which the American Surgeons call "Early Ambulation".

Six years after the Henry Ford experiment Dr. Daniel J. Leithauser hurried to the St. Joseph's mercy Hospital, late at night in response to a frantic telephone call from a frightened nurse to find that a patient whom he had operated upon that noon, was busily carrying water up and down the wards to other patients. The doctor remonstrated with him explained the risk he was taking and told him that the wound may open and let his intestines fall out unless he got back to bed and rested.

"Sounds Silly to me" said the patient, "nothing like that can happen to me when I feel as well as I do". He slept comfortably that night without being annoyed by gas pains and nausea that usually follow an appendix removal. He was up early the next day asking for his breakfast. He said he felt very well, saw no sense in staying in the hospital, got into his car and drove home. The next day he came back to do some shopping and to be seen by the doctor. He worked in his garden on the following two days. On the fifth day after the operation, he again drove forty miles to the hospital for medical inspection. He was found to be in much better health and

shape, than other appendicitis cases operated on the same day, who were still in bed.

This incident made Dr. Leithauser wonder if there were any basically sound reasons why a patient should be compelled to rest in bed several days after an abdominal operation. He recalled that children, who cannot be kept quiet, usually recover inspite of their activity, and that his son had jumped up and down in bed shortly after an appendectomy with no ill effects.

He next experimented, not without fear, with getting a few patients out of bed on the first day after appendix removal. Their accelerated convalescence reassured him and soon he handled all appendicitis cases in this manner even allowing them to go home after the operation, if they seemed all right. Three years later, in 1941, he published eminently satisfactory results for 370 patients thus treated. He then applied the treatment to patients who had undergone other abdominal operations. These also did better than similar patients confined to bed. Their kidney functions quickly returned to normal and they did not require enemas and they needed less than half the pain-relieving drugs usually administered. They ate and slept well and returned to work in less than half the calculated time. This was not all. They were all free from the pneumonia which ordinarily would have endangered the lives of about ten per cent of such cases. He carried out the "vital capacity" test and found that the normal breathing volume was regained in from two to seven days by early risers, as against seven to fourteen days for late risers. Convalescence was very rapid in early risers. This procedure of "early ambulation" after operations for hernia, appendicitis, fall, bladder diseases, and other abdominal conditions was soon followed by several other hospitals and one hospital reported uniform success in 2000 abdominal operations, in which patients were up within 24 hours.

The exigencies of war favoured the extension of the procedure in lying-in-hos-

pitals. Many cases in the London hospitals were sent home 2 or 3 days after delivery, during the 1940-41 London Blitz, without any ill effects. Physicians were surprised to find that phlebitis and deaths from blood-clots dropped down considerably.

In 1944, a hundred Detroit surgeons saw the first motion pictures showing "early ambulation" treatment after major

operations. They watched patients climb stairs, do bending exercises and leave the hospital, within a few days after the operation. Several copies of the film, approved by the American College of Surgeons, are reported to be in circulation throughout the United States and Canada.

T. N. S. RAGAVACHARY,
Retd. Public Health Bacteriologist, Madras.

ASSOCIATION NOTES

COIMBATORE BRANCH

President :	Dr. N. K. Sampath.
Vice-President :	Dr. C. Nanjappa.
Secretary :	Dr. A. G. Leelakrishnan.
Associate Secretary :	Dr. S. Ganapathy.
Treasurer :	Dr. T. V. Sivanandam.

The 23rd annual meeting of the Coimbatore District Medical Association was held on Sunday the 16th May 1948 at the State Hall, Govt. College, Coimbatore.

The function commenced at 4 P.M. with reception. After Tea the chief guests Dr. U. Krishna Rao, M.B.B.S. the worshipful Mayor of Madras and Dr. P. Arunachalam, M.D., M.R.C.P., D.M.R., T.D.D. Superintendent, Stanley Hospital, Madras were led to the dais by the President, Dr. T. K. Subramanian and the Secretary Dr. C. V. Ramaraj. Next the annual report of the association for the year 1947 was read by Dr. S. Ganapathy, the Associate Secretary, which made mention of the second South Indian Provincial Conference of the I.M.A. conducted by our association. Messages received from Dr. T. S. Tirumurthy, Lt. Col. Bhatia—the Surgeon-General with the Government of Madras and from various associations were read.

Next the President introduced Dr. U. Krishna Rao and requested him to deliver the inaugural address.

Dr. Krishna Rao, delivering one of the brilliant addresses that the association ever had the opportunity of hearing, mentioned that India had the finest medical men in the world and appealed to the Madras Government to start more medical colleges in places like

Coimbatore, Guntur, Calicut, etc. He felt that admission must be on the basis of merit reserving about 30% to the backward classes. He expressed that preference should be given to the children of medical practitioners. Citing the example of America, where the course of study extended only to three years with no adverse effect, he pleaded for elimination of unnecessary subjects and reduction in the period. Referring to the Indian System of medicine, he said it should be studied as a part of the allopathic system in the medical colleges on a more scientific basis. He appealed to medical men to take more active part in politics and public life. He concluded by congratulating the Coimbatore Medical Association on its splendid work and for the spirit of co-operation and unity that manifested among its members.

Next Dr. P. Arunachalam addressed the members on "Treatment of Cardiac Failure in General Practice" dealing with the many pitfalls in diagnosis and treatment.

Dr. C. V. Ramaraj, the Secretary proposed a vote of thanks.

Dr. I. G. K. Menon, Secretary Nilgiris District Medical Association thanked the Coimbatore Association for the honour of visiting their association and associating with them.

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The business meeting for the election of office bearers was held at 7 P.M. and the following office bearers elected.

Dr. N. K. Sampath, *President*.
Dr. C. Nanjappa, *Vice-President*.
Dr. A. G. Leelakrishnan, *Secretary*.
Dr. S. Ganapathy, *Associate Secretary*.
Dr. T. V. Sivanandam, *Treasurer*.

Committee members:

Dr. Mrs. Saradambal.
Dr. T. K. Subramaniyan.
Dr. P. N. Ramaswamy.
Dr. C. V. Ramaraj.
Dr. G. A. Chandrasekaran.

Central Council:

Dr. N. K. Sampath.
Dr. Miss M. K. Saraswathy.

Provincial Council:

Dr. A. G. Leelakrishnan.
Dr. C. V. Ramaraj.
Dr. B. S. Viswanathan.

A building sub-committee was also formed with the following members.

Dr. N. K. Sampath, *President*.
Dr. A. G. Leelakrishnan, *Secretary*.
Dr. T. V. Sivanandam, *Treasurer*.
Dr. Y. P. Vasudevan, "
Dr. P. N. Ramaswamy, "

The outgoing secretary thanked the various members for their co-operation during his term of office and the meeting terminated followed by a dinner at night.

NORTH ARCOT BRANCH

President: Dr. K. N. Rao.
Vice-President: Dr. Norman S. Macpherson.
Secretary: Dr. K. I. Vythilingam.
Jt. Secretary: Dr. E. Ramalingam.

The North Arcot Branch of the Indian Medical Association met on 20-2-48 at the Government Pentland Hospital, Vellore. Dr. Cochrane was elected to the Chair.

The minutes of the previous meeting was read and approved.

The monthly clinical meeting of the association was held on Saturday the 26th June 1948 at 6 P.M. in the association premises with Dr. N. K. Sampath, the President in the chair. Forty two members were present. After Tea and introduction of new members, nomination for the Presidentship of the S.I. Provincial Branch of the I.M.A. was taken up. Proposed by Dr. L. Muniswamy and seconded by Dr. A. G. Leelakrishnan Dr. P. N. Ramasubramaniyan of Mudura was unanimously nominated for the same.

Then Major M. R. Rao, M.B.B.S., L.O., I.A.M.C., O.C. Military Hospital, Coimbatore delivered a very interesting and instructive lecture on "Heterophona" its diagnosis and treatment by simple apparatus and its detection in certain cases of malingering. A short discussion followed in which Dr. D. Sundareswaran and Dr. K. V. Subramaniyan took part.

The President in his concluding remarks thanked Major Rao for his instructive elucidation of a most difficult and a highly specialised subject with sustained interest for nearly one hour.

After a vote of thanks by the Secretary to the host of the evening Dr. N. K. Sampath, the meeting terminated at 8-30 P.M.

Lt. Col. T. S. Shastry, I.M.S., (Retd.) gave a very interesting talk on his experience during the war in Malaya in "The Mission of Aid or Mercy" where he was in charge of 8 units.

The President Dr. Cochrane welcomed the new D.M.O. Major K. N. Rao, most

enthusiastically. This was followed by a speech from Major K. N. Rao, (D.M.O.) who said that he would give his full support to this Medical Association.

Election of officers:

Dr. K. N. Rao, President.
Dr. Norman S. Macpherson, Vice-President.
Dr. K. I. Vythilingam, Secretary.
Dr. E. Ramalingam, Jt. Secretary.

The meeting was preceded by tea and it closed with a vote of thanks from the Major K. N. Rao, the newly elected President.

The North Arcot Branch of the Indian Medical Association met on 17-4-48 at the Christian Medical College Hospital, Vellore.

Dr. K. N. Rao, D. M. O. presided.

The Minutes of the previous meeting were read and approved.

Dr. M. D. Graham, M. B. Ch. B., D. C. H. (Lond.) gave a very interesting account of (a) a case of Pseudor

muscular dystrophy with special reference to its etiology, pathology and clinical biochemistry (b) a case of sudden death in a baby of 1½ months due to asphyxia from regurgitated food during sleep.

Dr. Sarveswara Rao, M.B.B.S. gave an interesting talk on Surgical treatment of Tuberculosis of Coecum.

Dr. Muriel Sathyam M.B.B.S. read a short paper on Pyloric obstruction which was very instructive.

Dr. Narayanaswamy, M.B.B.S. talked on needle as a Foreign body. He gave instances of several other cases besides the one which he had in this hospital recently.

Dr. K. N. Rao D.M.O. demonstrated a case of constructive Pericarditis and its surgical treatment was discussed.

There was a very good discussion on each case.

The meeting came to a close after the Presidential remarks.

RAMNAD BRANCH

President: Lt. Col. M. A. Parthasarathy.
Vice-President: Dr. T. S. Shetty.
Secretary & Treasurer: Dr. S. Sundaresan.
Asst. Secretary: Dr. M. Sreenivasulu.

The monthly meeting of the Association was held at 5 P.M. on 19-6-48 in the Govt. Hospital, Rameswaram, under the presidency of Lt. Col. M. A. Parthasarathy, F.R.C.S., District Medical Officer, Ramnad. About 7 members were present. Dr. S. N. Ganapathi, Civil Asst. Surgeon, Rameswaram, entertained the members to tea on arrival, and the meeting commenced. It was resolved to recommend the name of Dr. P. A. S. Raghavan, Trichinopoly,

for the presidentship of the South Indian Provincial Branch.

Dr. S. N. Ganapathi read an exhaustive paper on 'AMOEBIASIS' and its treatment. After that Lt. Col. Parthasarathy supplemented the same from out of his personal experience. The meeting terminated at about 7-30 P.M. after thanking Dr. Ganapathi for his hospitality. The members were later entertained to a nice dinner arranged by the host Dr. Ganapathi.

TANJORE BRANCH

President: Dr. Janab Mohamed Ismail.
 Vice-President: Dr. T. M. Pillai.
 Secretaries: Dr. E. K. Menon.
 Dr. P. A. K. Nair.

The annual meeting of the Tanjore District Medical Association was held on Sunday the 21st March 1948 at 11 A.M. in the Medical School Buildings, Tanjore. About 90 members were present. Col. S. L. Bhatia, Surgeon-General with the Government of Madras, presided.

After prayers, a condolence resolution was passed on the death of Mahatma Gandhi—all members standing.

The President after a short speech-unveiled a portrait of Mahatmaji.

A sum of Rs. 225/- (Two hundred and twenty five only) contributed by some members of the association was presented to the Surgeon-General towards the Relief of Refugee Doctors from Pakistan.

After reading of the Annual Report by the Secretary and the Presidential address, Dr. S. T. Achar of Madras gave an interesting lecture on 'Some aspects of Medical relief and Teaching in the United Kingdom, Canada, and America'.

Lunch was served at 12-30 P.M. The meeting reassembled at 2-30 P.M. to transact business, Dr. Mohamed Ismail, presiding.

TRICHINOPOLY BRANCH

President: Dr. T. N. Subramanyan.
 Vice-President: Dr. G. Joseph Guanadickam.
 Secretary: Dr. P. V. Sundaram.
 Treasurer: Dr. C. R. Chary.

An emergency monthly meeting of the above association was held on 30th May 1948 at 5-30 P.M. in the premises of the Dist. Health Association, Puthur with Dr. T. N. Subramaniyan in the chair. About 20 members attended. Dr. C. R. Chary was 'At Home'.

The following members were unanimously elected as office-bearers for the year 1948-49.

Dr. Janab Mohamed Ismail, President.
 Dr. T. M. Pillai, Vice-President.
 Dr. E. K. Menon, } Secretaries.
 Dr. P. A. K. Nair, }

Committee members:

Dr. N. Ramanathan.
 Dr. P. Narayana Rao.
 Dr. N. R. Subramanyam.
 Dr. Mrs. K. A. Selvanayagam.
 Dr. S. Narayanan.
 Dr. L. T. Appadurai.

After the business meeting, Col. S. L. Bhatia presided and Dr. Achar continued his very interesting lecture.

Tea was taken at 4-30 P.M. After Tea, Dr. R. V. Rajam of Madras spoke on 'Fourth Venereal Disease'.

Dr. V. K. Ramachandran of Pudukkottah one of the speakers of the day, was absent due to unavoidable circumstances.

The meeting with a vote of thanks to the chair, and the speakers and the guests of the day and also to the Unichem Laboratories, Bombay and Messrs. Albert David Ltd., Calcutta for their fine lunch and Tea respectively.

June 1948]

Dr. S. K. Sundaram, M.D. gave the members quite a lot of useful information by way of answers to several questions put by members.

Then meeting came to a close at about 7 30 P.M. with a vote of thanks to Dr. S. K. Sundaram and Dr. C. R. Chary the host.

* * * * *

A monthly meeting was held on 15th June 1948 at 5-30 P.M. in the premises of the E. R. High School

with Dr. T. N. Subramaniyan in the chair. About 35 members were present.

Dr. T. N. Subramaniyan was 'At Home'.

Dr. P. Natesan, Veneriologist, Stanley Hospital, Madras delivered a very interesting and useful lecture on 'Modern treatment of Venereal Diseases'. This was followed by a discussion.

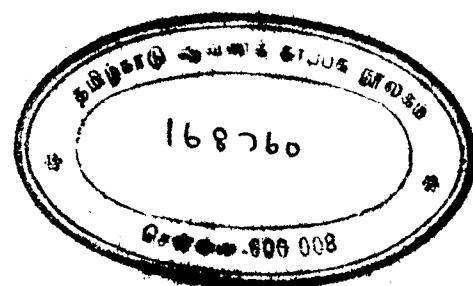
The meeting came to a close at about 7-30 P. M. with a vote of thanks to Dr. P. Natesan and Dr. T. N. Subramaniyan.

CHANGE OF ADDRESS

DR. S. JANAKIRAM from Nattarasankottai to Kilasevalpatty.
 DR. S. VAIDYANATHAN from Poolankurichi to Kamuti.
 DR. T. S. SIVARAMAKRISHNAN from Kamuti to Kanadukathan.
 DR. P. V. VENKATACHALAM from Vellore to Tinnevely.
 DR. A. S. KRISHNA IYER from Vellore to Salem.
 DR. V. THANGAVELU from Tirukattupalli to Ayyampet.
 DR. K. JAYARAM from Vanoor to Ulundurpet.
 DR. M. NATESAN from Kattumannarkoil to Porto Novo.
 DR. C. K. RAMACHANDAR from Tiruvannamalai to Ranipet.
 DR. M. S. RAGHAVENDRA RAO from Enamgudi to Manalmedu.

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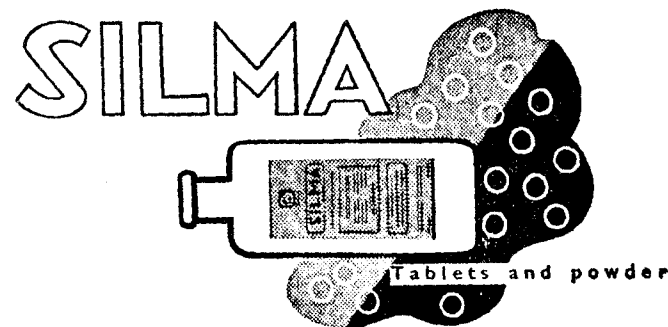


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today we are sending to our dealers more stocks of the purest form of anhydrous dextrose. The position has greatly improved, and we trust being able very soon to supply all dealers with the stocks they require.

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Magnesium Trisilicate Sara, a valuable antacid, is the principal ingredient of **Silma**. Its strong antiseptic powers protect ulcer bases from destructive digestion. It does not render stomach contents alkaline and no gastro-intestinal symptoms are ever produced by it. It does not cause constipation and diarrhoea.

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ODDS & ENDS

If there're facts that you'd retain,
Jot them down.
Whether duty calls or pleasure,
If you're busy or at leisure,
It will help you beyond measure,
Jot them down.

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"Let me see your tongue" said the doctor.
She showed it.

"Put it out better".

She obeyed.

"Better still" said the doctor.

"What, you seem to think there is no limit to a woman's tongue" she snapped annoyed.

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Doctor after examining the patient:

"I don't like the look of your husband, Mrs. Smith."

Mrs. Smith: "Neither do I doctor, but he is our main support."

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The Dentist asked for five rupees after removing a tooth.

"Your rate is only one rupee per tooth" protested the patient.

"Yes, but by your shouting and yelling, you have scared away four of my patients in the waiting room."

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The physician was anxious about his patient. He phoned his house and asked the son who answered the call, "What is your father's temperature now?"

"I can't say, doctor, he died two hours back."

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A patient cured his insomnia by keeping his bedroom windows open. That was his sleeping draught.

RESO-LIVER

(A proteolysed Liver Tonic with
Vit. B. complex)

After extensive clinical trials we are introducing to the Medical Profession RESO-LIVER, a *Proteolysed Liver-Stomach-Yeast Tonic with Iron, Glycerophosphates, and Vitamin B Complex*. Even in cases where the causative factors of the Anaemia could not be correctly diagnosed RESO-LIVER has given excellent results and the Reticulocyte response has been rapid.

RESO-LIVER is indicated in all types of Anaemias including Tropical, Pernicious, Macrocytic, Hyperchromic and Pregnancy Anaemias. In all conditions of Malnutrition, Worm Infections, Metallic Poisoning, Sprue, Anaemias associated with Beriberi, Pellagra etc. and Convalescence after acute illness, RESO-LIVER gives the desired effect within a week after its use.

One of the several Doctors regularly prescribing RESO-LIVER to his patients says:

"I am very glad to let you know the result of your product the RESO-LIVER which I have tried on one male aged about 37. His blood was examined before giving your product. After giving one Bottle of RESO-LIVER, his blood was examined again. I am glad to let you know that the result was wonderful. There is an improvement of 25%...The Patient was not under any other medical or injection treatment during or before the treatment. I am glad to let you know that the product "RESO-LIVER is as good as any other foreign preparations.

Yours Sincerely,

(Sd.).....

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