



BULLETIN
OF THE
SOUTH INDIAN MEDICAL ASSOCIATION.

APRIL 1934.

THE SERVICES AND PRIVATE PRACTICE.



The question of allowing the members of the paid services to engage in private practice has been often discussed in the local Legislative Council. And on almost all those occasions successive Ministers have assured the members of the Council and the public that this practice would be given up as soon as the requisite number of medical men are available. As a result of this agitation and realization on the part of the Government of the needs of the teaching institutions and the hospitals, officers holding certain posts like the chairs of Anatomy, Physiology, Pathology and Medical Jurisprudence are debarred from private practice. Some of these officers are on a different scale of pay from the Civil Surgeons, while others are given an allowance in lieu of the practice they might lose. This is as it should be. But we cannot understand why others similarly engaged in teaching or other specialized work should be differently treated. It is generally given out that medical officers are allowed private practice so that their greater experience might be utilized by the

public. This might be true to a limited extent in the case of officers who are engaged in teaching clinical subjects, like Medicine, Surgery, or Midwifery. But we fail to understand how this could apply to people who teach such subjects as Bacteriology or Radiology. It might be said that experts in these subjects are not many and that they should therefore be allowed to help the public by engaging in such private practice. If this be true one can understand these specialists doing practice in their own special departments. We are afraid that these men on the other hand are sometimes busy *general practitioners*. We understand that medical men in an institution where bacteriological and other laboratory work is done have till now been allowed to engage only in private work requiring skill in their special departments. It is rumoured that they have requested the authorities that they should be allowed to take ordinary general practice. We further understand that the superior officer and probably the head of the department have recommended to the Government that this request might be conceded on the ground of the paucity of medical men in this country. We hope that this is not true. Otherwise, it would look as if we are working backwards. Time was when the Superintendent of the Government General Hospital, then known as the S. M. O. was not allowed any private practice whatever. He was later allowed only "consultant practice". Now he is allowed any practice that he may care to take. Till recently, the Assistant Superintendent of the Government Hospital for Women and Children was not allowed any private practice. We believe that he is now allowed to indulge in private practice, perhaps "only consultant practice". The Resident Medical Officers of some of the hospitals in the City are prohibited private practice

even to this day. In the light of the new philosophy of paucity of medical men we may soon find this ban on practice lifted even in the case of these Resident Officers. What a commentary on the expressed desire of the Government to encourage the growth of a healthy and flourishing independent medical profession in this country! And yet, in the report of the Medical Education Committee of General Megaw much stress was laid on the existence of unemployment in the medical profession, and it is found therein that the need of the country is not more doctors but better educated doctors. The gradual evolution of affairs in the Madras Medical Department reminds one of the old school adage that the appetite grows with eating. When there was a certain definiteness in the rules and procedure of the department, medical officers were content with their fairly comfortable place in the department. But when they found the rules relaxed in the case of some officers, others began to claim almost as by right similar relaxation of rules for themselves. They feel that they have a complete argument in mere precedent. One mistake does not justify another. This saying may be too subtle for some of them. But it is for the Government to see that they do not multiply such wrong precedents. If such lapses are not prevented and the existing ones removed we should not wonder if they wake up some day to find the rules and procedure at such variance that discipline, the pet of the bureaucrat, would be hard to maintain in the medical department. We trust that the present Surgeon-General who has come here with such high previous record would soon put an end to these undesirable inroads into the existing rules. We trust further that he would improve the efficiency of the public institutions by a reasonable limitation of the privilege of private practice of the medical subordinates.

The Present Medical Curriculum.

By Alexander Brown, M.B., CH.B.,
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A reform of any system must involve critical examination of two kinds: that directed, on the one hand, to the selection and elimination of all the less attractive features in the old fabric; and that, on the other, concerned with the incorporation of the most helpful of the methods born of experience, into the new. The pruning-hook must always precede the appearance of healthy new growth.

Turning the critical eye on the present system of medical education, surely the first thing which must strike the new undergraduate, accustomed as he has been to the unified system of the school, is the lack of co-ordination and the redundancy associated with this. He finds his teachers in one subject completely ignorant of the scope of the other subjects being studied by their proteges; they inculcate their routine and lectures as if the other chairs in the faculty were as yet unfounded. Mitosis and cell division are served up to the student by half-a-dozen professors at different times, with variations in terminology and detail so confusing as to reduce the learner's ideas on the subject to a haze at once of incredulity and uncertainty. There is no centralisation, no economy in energy, either teacher's or pupil's. It is a fleet with each ship steering its own obstinate course.

Again, accustomed to teachers of ability and experience, he comes under the ægis of those chosen more for their power of adding to knowledge than for their capacity to impart it. Teaching is regarded in many cases as a necessary evil, an unavoidable sideline, and the furtherance of research tacitly considered to be the prime object for the

existence of the university. Can it, then, be wondered at that the standard of teaching is low and uninspiring? The laboratory equipment is poor and drab, even in many of our best schools, money presumably being expended in other directions. Is it, then, surprising that the undergraduate, in the midst of this welter of advanced study, feels outcast to some extent, a waster of the time of others, a spoiler of materials, a slave to routine? In the average course no incentive is given to enterprise apart from the attainment of success in the term examinations. There is neither time nor encouragement given for individual experiment and initiative: the motive is satisfied, and that is sufficient. Wandering from a very beaten track is frowned upon. It is in this lack of teaching skill and of the individual touch that our universities fall short of the teaching in some of our public schools. How often does the undergraduate hear from his teachers: "Although this method is quite out of date, examiners have a habit of asking it." The examination system, instead of being the servant of the universities, has made them its slave.

The inevitable response to the present system is to concentrate not on the acquisition of knowledge, but on the absorption of facts likely to be of use in the examinations.

The time is ripe for a change. The basis is to some extent being laid securely by the secondary schools and colleges. The student comes up with a better general education in its broader aspects than probably ever before. His mind is fertile soil, ready for the sowing.

The present system of education fits him to pass his requisite examinations, no doubt, but what it fails to do is to inculcate the attitude of mind of the

naturalist and the philosopher : to be wide in the studies and interests apposite to his profession beyond the necessary narrow confines of his course, and to assess the knowledge he acquires critically and fearlessly, subject always to correction. (How often is the budding physician inspired to read the writings of the older masters — Sydenham, Hippocrates, Paget, and so on ?)

The average medico is not a medical philosopher. His education does not fit him to take his stand among men educated in the other branches of thought, and have his opinion respected as that of a man of authority. The narrow confines of curative medicine form the sum total of his professional interest proper. He who ventures beyond is regarded rather in the light of a pioneer, and his researches considered not so much as properly a part of medical knowledge as examples of individual idiosyncrasy.

If the medical profession is to retain its lofty status, not only among the intelligentsia, but even among the increasingly critical masses, medicine must be taught on a very much extended basis. The medico must think intelligently and critically on problems at present considered remote from his domain. He must be able to talk with insight on subjects even remotely connected with the problems of health and disease. He must again become what he was in the past—a thinker as well as a man of action and practice.

To be more specific regarding the points raised above : it may be said that too little use is made by students of out-of-hospital clinical facilities. The benevolent dispensaries and semi-religious medical missions with which every large city abounds, afford, *if developed*, untapped resources of incalculable value. There is the opportunity for shouldering a measure of

responsibility unattainable in the teaching school ; there is the delight of seeing one's prescribed remedies actually working, the contact with human nature in all vicissitudes, and the engendering of resource and methods of diligence. It is all the difference between hearing a singer and listening to a gramophone.

Again, how much attention is paid to the influence of climate on disease, to geographical influences, to racial differences, and so forth ? To what extent is the open mind preserved in the assessing of the less well-established methods of physical therapy before they are relegated to the outer darkness of "unorthodoxy" ? And, lastly, one cannot but deplore the pigeon-holding tendency developed in the large teaching schools, where treatment of diseases of special areas is confined rigidly to certain departments, so that the student begins to think that a patient cannot possibly have a skin disease because he is in a surgical ward, and not in the skin department. The "pigeon-hole" mind is a great menace. It would be well if the undergraduate received his tuition in the "special" subjects in the general wards of the hospital, if only to preserve this wide attitude of mind, so infinitely desirable. And so a return is made to the beginning of our argument : the elimination must be critically and fearlessly done, the incorporation carried out in the light of unprejudiced experience.

The Menace of Dumping of German and other Foreign Doctors.

The medical profession of Bombay is much agitated about the unrestricted admission of foreign doctors, and particularly German Jews, who have been expelled from their own country under the Nazi regime. India is fast

becoming the dumping ground for German and other foreign doctors. The profession in Bombay is already much overcrowded, and there is growing an extensive unemployment among its members.

This unrestricted dumping of foreigners is a new menace, which has already increased the unemployment among the Bombay doctors.

Just as there is unrestricted dumping of foreign drugs from all parts of the world into India, so now this dumping of foreign doctors has started. The main reason for such dumping is the absence of all restrictive legislation in India against the dumping of foreign goods and of foreign practitioners, such as exists in all civilized countries.

India is thus at a great disadvantage in this menace of unwanted ingress of foreign practitioners and goods. It is very unfair that whilst Germany prohibits medical practice to Indian doctors qualified in India, on the other hand, any foreign medical practitioner has the privilege of settling in any part of India without any restriction whatever.

The so-called Indian Medical Council has now been formed but it has no power to prohibit the practice of medicine by foreigners in India. Thus, the Council is impotent so far as this great problem of medical practice in India is concerned. The only power it possesses under the Act is that of entering into schemes of reciprocity with foreign countries within four years, *i.e.*, the mutual recognition of degrees and diplomas. However, the fundamental absurdity of this power can be realised from the fact that even in the absence of recognition of any foreign degree and diploma, any foreign doctor can come to India and practise in India without any restriction, whilst no Indian doctor, inspite

of his Indian degree and diploma, can practise in any of the foreign countries.

It is interesting to read the following account of a meeting of the Bombay Rotary Club held on the 20th February last, as published in the papers. Rotarian Dr. J. N. Duggan, who occupied the chair, asked Rotarian Dr. Adalbert Fuchs of the Vienna Club at the end of his lecture, what the position was in Austria and Germany with regard to doctors holding foreign qualifications practising in those countries. An Indian doctor with degrees obtained in India could practise in England, and many had done so, establishing good practices. Could Indian doctors do so in Vienna or Berlin, etc. ? He wanted to know because German and others doctors were practising in India and there ought to be reciprocity."

Dr. Fuchs replied that they could not so practise unless they had diplomas obtained in Austria, and were of Austrian nationality. The position in Berlin and Vienna was not exactly similar, and he explained it in detail.

Our case is that we are sending hundreds of Indian medical students and graduates to study in foreign countries including Germany and Austria, and their parents are put to heavy expenses. When those students return to India they will find that foreign practitioners have already established themselves in India, and so there will be little or no scope for talents and special experience and the money spent on their education will have been wasted to no purpose. It is clear that India does not stand in need of any foreign medical practitioners. The medical profession is united in its demand for prohibiting this dumping of foreign practitioners into India. The remedy is self-evi-

dent. Central Legislation should be undertaken early to amend the Indian Medical Council Act, 1933, so as to empower the Council to prohibit under heavy penalties, the practice of medicine by any foreign medical man, coming from a country, which prohibits to Indian doctors the practice of medicine in its own country. France, Germany, Austria, etc., and the United States of America prohibit the practice of medicine by foreigners in their own countries. There is no reason why India should be left helpless in this matter.

In India, there are already some 30,000 duly qualified practitioners, whose economic condition is precarious and it will be made worse by this dumping of unwanted foreigners. The profession has the right, and not only the right, but also the duty of self-preservation towards itself, to demand the urgent passage of legislation for prohibiting the practice of medicine by foreigners in India. In fact, the general opinion among the members of our profession is that only Nationals of India should be allowed to practise in India. It must further be made perfectly clear under the proposed legislation that no foreigner can practise in India whether as a possessor of medical degree and diploma duly recognised for practice in his own country, or otherwise. To put it in plain language, no foreigner, whether he is a duly qualified medical man or whether he is a quack, can practise medicine in India, unless Indian Nationals are allowed to practise medicine in the foreign countries.

At the Tenth All-India Medical Conference held in Bombay in December last, the first Resolution laid down that "the time has arrived in the interests of the solidarity and the unity of the profession to hold the Annual Conferences of both the allied

Associations, *viz.*, the Indian Medical Association and the All-India Medical Licentiates' Association during the same week at the same place every year, and to consider and take necessary joint measures for the benefit of the profession and of the public, and to present a united front in all problems affecting the medical profession in India."

As this menace of foreign dumping is an All-India menace, and foreign practitioners are as likely to settle in Calcutta and other cities as in Bombay, the medical profession in India must present a united front in face of this menace at the very start, and not sit with folded hands till the menace has grown to a vast extent and vested interests established, and then repent of its apathy later.

Medical men are under the wrong impression that the Provincial Medical Councils of Registration and the recently formed Indian Medical Council of Higher Medical Education are bodies empowered to safeguard the economic position of the profession. Such an impression is entirely groundless. It is not the function of any of these Medical Councils whether Provincial or Central to safeguard the economic interests of the profession in any sense of the term. They are absolutely impotent in the matter. Hence, I believe that looking at the past experience of the working of these Councils, they will not succeed in achieving the purpose we have in view, *viz.*, the restriction of practice of medicine to the Nationals of India, and the prohibition of such practice to non-Nationals.

I would, therefore, suggest that a new Bill should be drafted on the lines of the Indian Medical Degrees Act No. VII of 1916. The Bill may be called the 'Indian Medical Practice Bill,'— a Bill to regulate the practice of

medicine in India and to prohibit the practice of medicine in India by foreigners,' India should no longer form a happy dumping ground for the unemployed medical men of other countries.

It need not be pointed out that the legal profession is fully protected against unfair competition by legislation which restricts the practice of law to only duly qualified and enrolled members of the profession, so that no person can practise in the courts without a Sanad. The clerical profession is fully protected, for instance, no one can become a Christian, Hindu or Mahomedan priest except under the specified conditions. As regards other professions also, they are to some extent protected. The only profession, therefore, left unprotected at the mercy of unrestricted competition is the medical, which is already overcrowded.

However, the progressive Baroda State has recently passed the Baroda Medical Act, which restricts the practice of medicine to persons duly registered under the Act, and prohibits the practice of medicine by unregistered persons and quacks. Indirectly, this Act will prevent foreigners from practising in the State as they cannot be registered under the State Act.

The Indian Medical Association and All-India Medical Licentiates' Association should now join hands and appoint a Medico-Economic Committee for the purpose of safeguarding the economic interests for the profession, as laid down in the Resolutions passed at the recent Medical Conferences held in Bombay during last December. These two Associations should also agitate for the passage of legislation to prohibit the practice of medicine by foreigners in India.

The profession must cultivate the sense of self-preservation—particularly in its economic aspect, and follow the example set by the well-organised

British Medical Association and other National Medical Associations in civilised countries, which are working with success for the economic self-preservation of the profession in their own countries.

—*Bombay Medical Journal.*

The I. M. S.

It was stated in the White Paper that the question of the future of the I. M. S. was engaging the attention of the authorities and their decision would be shortly announced. If they were to take the view expressed by Major-Genl. Sprawson in the Council of State yesterday, Indian opinion would be extremely dissatisfied. The present recruitment for the Service is in the proportion of two Europeans to one Indian, Major-Genl. Sprawson stated that, in the working out of the actual strength to-day, it was found that the proportion was really 1·7 to 1. Apparently this diminution of the relative strength of the European personnel has not led to any deterioration of the Service; else we should have heard of it. Why, then, should the Government demur to the suggestion that the proportion should, in the I. M. S. as in the I. C. S., be fifty-fifty? It is a pity that Major-Genl. Sprawson could not say why, and that the Commander-in-Chief, who, the Council of State was asked to believe, could explain it all satisfactorily was not to be found in his place in the Council. Major-Genl. Sprawson's own objections are hardly convincing, so far as the employment of I. M. S. officers on the civil side is concerned. These officers, it is stated, are retained for a two-fold purpose. In times of peace, they serve the needs of British civilian officers and their families; when there is a war the I. M. S. officers, many of whom are army reserves, are mobilised in the proportion of two Europeans to one Indian. Major-Genl. Sprawson

argued that an increase of the Indian medical personnel on the military side could take place only *pari passu* with the progress of Army Indianisation and that on the civil side also, the number of Indian I. M. S.'s may be expected to increase as Indian officers in the I. C. S. and other higher services increase. But Army Indianisation proceeds at a snail's pace; to make Indianisation of the I. M. S. depend upon this is to postpone effective reduction of the British personnel indefinitely. It is equally unreasonable to ask that a costly European element should be retained simply to pander to the colour prejudices of a small section of the higher services. In any case, there is no justification for retaining the two to one proportion, when even for the I. C. S., and the I. P. S. Europeans and Indians are recruited in equal numbers. As for the venue and method of recruitment, we are unable to see what objection there can be in reason to the suggestion made in the Council of State for recruitment by simultaneous competitive examinations in England and India. The competitive system has, *pace* Mr. Syed Raza Ali, been found quite satisfactory in practice in the case of the I. C. S. Why should it be unsatisfactory in the case of the I. M. S.? Its adoption would have the positive value of removing the suspicion that in the recruitment for the I. M. S. efficiency has not always been the primary consideration. Besides the time is long past when an arrangement, so unnatural as recruitment in a foreign country for an important service, could be justified on any grounds that would carry conviction to the minds of the general public, when candidates with first class qualifications are available in any number in the country itself.

—Hindu.

City Municipal Dispensaries.

The report of the Committee of the Madras Corporation on the working of the municipal dispensaries in the City is now available for publication. It is signed by the Kumararaja M. A., Muthia Chettiar of Chettinad, Dr. C. Natesa Mudaliar, Dr. B. S. Mallaya, Dr. N. Krishna Rao, Dr. Syed Niamathulla, Dr. Abdulla, Mrs. H. Angelo, Dr. H. M. Lazarus and Dr. A. L. Mudaliar.

The Committee recommends that, as far as possible, the office of the Medical Registrar of Births and Deaths and the office of the Vaccinator should be located in the same building in which the Municipal Dispensary is located, while the Child Welfare Centre should be located in reasonable vicinity, preferably within a furlong, but not in the same building in which a dispensary is located.

(2) The Committee recommends that better qualified male and female attenders should be entertained—persons having knowledge of first aid and able to read instructions and labels on bottles which are in English. To give effect to this recommendation the Committee recommends that existing persons should be gradually absorbed in other departments and that their places should be filled by candidates whose educational qualification will be III Form for men and ability to read and write labels in English for women.

(3) The Committee recommends that there should be better arrangements for the examination of patients in private whenever necessary and also that there should be better equipment for seating and examination of patients generally.

(4) The Committee recommends that in the case of each dispensary to which a lady doctor is to be transferred, the

dispensary should be divided into two sections—male and female.

(5) The Committee recommends that having regard to the number of women treated in each dispensary and in each Child Welfare Centre a separate female section should be opened in the following dispensaries and that the eight lady doctors already recommended by the Committee to be transferred from the Child Welfare Scheme to the more important dispensaries of the City, should be put in charge of the same: Mannady, Mint Street, Perambur, Chintadripet, Pudupakkam, Triplicane, Mylapore, and Baliah Naidu Dispensary.

(6) The Committee is of opinion that the Baliah Naidu Dispensary and the dispensaries in Chintadripet, Triplicane and Mylapore are already located in buildings sufficiently large to carry out the above recommendations. The Committee recommends that as far as possible the remaining dispensaries should be located in larger buildings.

(7) The Committee recommends that the Mint Street Dispensary should be shifted as near as possible to George Town Child Welfare Centre and the Perambur Dispensary to a more central part of the area, preferably Strahans Road.

(8) The Committee recommends that it should be the policy of the Corporation to have its own buildings for Municipal Dispensaries and that in the meantime it should, wherever possible, take on lease larger buildings than many of the present ones with a view to have separate male and female sections, with separate waiting examination and dressing rooms and latrines.

(9) The Committee recommends the provision of racks to vaccination

depots and offices of medical registrars for filing records.

(10) The Committee recommends that the list of medicines, instruments, furniture, drugs, etc., required for the dispensaries and for the Leprosy clinic furnished by the Health Officer be approved, and that the lady doctors should be provided with furniture similar to the male doctors of dispensaries:—

(11) With reference to the resolution of Mr. K. Sreeramulu Naidu the Committee recommends that the Corporation do collect at a flat rate of three pies per head per visit from persons with an income upto Rs. 200 per mensem; that persons, whom the doctors consider to be destitute should be treated free and that persons having an income of over Rs. 200 per mensem should not be treated at the Corporation dispensaries except in cases of emergency.

(12) The increase in charges under the several heads as a result of these recommendations, the Committee understands will be as under:

Establishment Rs. 3,840; House rent Rs. 3,000; Medicines, Drugs and Dressings Rs. 5,000; Contingencies Rs. 800; and Furniture Rs. 1,800.

The Committee recommends that these recommendations should be given effect to as early as possible.

Dr. Syed Niyamatullah, in a dissenting minute, says: "The charges under establishment and medicines seem to be much. I do not understand how the new scheme entails so much increased expenditure. A detailed list may be put up along with the report and further I do not agree with the levy of any fee on any patient."

Dr. U. Krishna Rao states: "I do not agree with recommendation No. 11, I think we ought not to charge anything for medical treatment in Corporation Dispensaries. I thought the Committee has decided not to charge any fee but I find it otherwise in this report."

Medico Legal.

ALLEGED CONSPIRACY TO MURDER.

Charge against Bengal Doctor.

An interesting development in connection with Pakur Raj Murder Conspiracy case, took place when the Public Prosecutor moved the District Judge, Alipore, for the cancellation of the bail granted to Doctor T. N. Bhattacharjee, arrested on a charge of having conspired with others to murder Amarendranath Pande, co-sharer of the Pakur Raj estate. In support of the application, the Public Prosecutor said Doctor Bhattacharjee took very active part in giving final touches to the conspiracy. It was alleged that he went to Bombay with Benoyendra, step-brother of the deceased and secured the plague bacilli from the Haffkin Institute, through an officer of the Municipal Laboratory, on the pretext that he would require them for researches in order to find out a cure for plague.

AMERICAN SURGERY MURDER CASE.

A sentence of twenty-five years imprisonment was passed on Dr. Alice Wynekoop, a lady surgeon of Chicago.

Dr. Alice Wynekoop was charged by the prosecution with the cold-blooded murder of her daughter-in-law, Mrs. Rheta Wynekoop, who was found dead on an operating table in her mother-in-law's surgery with a bullet in her heart. It is alleged the murder

was committed to obtain a five thousand dollar insurance, effected shortly before her death.

Dr. Alice Wynekoop, who retracted her earlier confession, was found guilty by the jury after thirty-six minutes' deliberation. The defence claimed that Mrs. Rheta Wynekoop committed suicide or was murdered by a mysterious drug fiend.

MEDICAL ASSOCIATIONS.

Godavari District Medical Association.

The monthly meeting of the East Godavari District Medical Association was held on 10th March 1934 in the premises of the Government Hospital, Rajahmundry. Over sixty gentlemen attended the meeting. The local members were "At Home" to the visitors in the hospital premises. Major Shankar Sastri, I.M.S., District Medical Officer, East Godavari, presided over the evening's meeting. Dr. P. Gurumurthi and Mr. S. V. Rama Rao demonstrated a case to prove the danger of vaccination. They requested the D.M.O., and the other medical men to investigate into the case. Major Shankar Sastri spoke on "Head Injuries." With dinner and music party the function came to a close late in the night.

North Arcot District Medical Association

A meeting of the North Arcot District Medical Association was held on 12th March 1934 at "College Hill," Thorapadi, under the presidency of Major M. M. Cruickshank, I.M.S., the District Medical Officer. After light refreshments, Major Cruickshank delivered a very interesting lecture on "Thyro-Thymic Lymph Tract."

Immediately after the conclusion of the meeting, the members of the Association met in the Assembly Hall of the Medical School for Women, in order to bid farewell to Drs. Ida S. Scudder (Principal of the Medical School for Women), A. Degenring and G. F. Scudder, who are leaving India on furlough. Appreciative references were made to their work in the cause of medical relief by Major Cruickshank and Mr. R. P. Nathaniel. The chief guests replied suitably.

Hyderabad Medical Conference.

The Hyderabad Medical Conference was held on 2nd March 1934 at the Osmania General Hospital, when in addition to medical members of the Government, several prominent private practitioners were present. Lectures on various medical subjects were delivered, and the function ended with a tea party arranged on behalf of Col. Norman Walker, Director of the Medical and Sanitation Departments.

Nellore District Medical Association.

The first annual meeting of the Nellore District Medical Association was held on 3rd March at the District Board Hall with Dr. K. Krishna Rao, M.B. C.M., District Medical Officer, in the chair. The proceedings started with tea and a group-photo. The Secretary then read the annual report of the Association. At 8 p.m. a dinner was arranged, after which Dr. E. Sundararama Reddi, District Health Officer, delivered a lecture on "Hook-worm."

Sind Medical Union.

The toll which Malaria claims in Sind is increasing of late and unless the Government and local bodies take steps to tackle seriously

this question, it threatens to assume a bigger proportion, said Doctor C. H. Primalani, presiding over the Sind Medical Union's annual dinner on 3rd March. Malaria is prevalent all over Sind last year, specially in areas supplied by waterways of the Sukkur Barrage. It is chiefly the rural population who are poor, ignorant and illiterate agriculturists that suffered most.

Referring to the position of the medical services, Dr. Primalani said that the utmost discontent would be caused in medical India if the recommendations of the Round Table Conference Sub-Committee that no posts should be reserved for Europeans only in the Medical Department and that I. M. S. people should not be transferred to civil side in future were not carried out.

Malabar Medical Association.

The monthly meeting of the Malabar Medical Association, Calicut, was held on the 25th March in Dr. Hackett Wilkin's Memorial Hall with Dr. N. Achuthan, Vice-President of the Association in the chair when Dr. K. Abraham delivered an interesting lecture on "My professional reminiscences." Dr. Abraham in the course of his speech recalled the old days of medical profession in the province and traced its development to the present day. After narrating the history of the Royapuram Medical School, he said that 50 years' back Calicut was the healthiest town to live in. In his early days there were no enteric fever cases. At that time Calicut was a poor man's paradise and everything was cheap. Now there was a great need for a tuberculosis institute in Malabar, for on the long coast line of Malabar the dire disease was more prevalent among the poorer classes than elsewhere. If they exerted them-

selves for the establishment of a Tuberculosis Institute in Malabar away from the coast their Association could proudly say that they had done a good thing for the public.

With a few remarks from the chair and with a vote of thanks proposed by Dr. V. Krishna Menon, the meeting came to a close.

Meeting of the Medical and Dental Professions of Bombay.

The following Resolutions were passed at the Meeting of the Medical and Dental Professions of Bombay, held on the 18th March 1934 :—

1. This meeting of the Medical and Dental Practitioners of Bombay puts on record its indignation at the unrestricted admission of Non-Indian doctors and dentists into Bombay and other parts of India from all those Non-Indian countries, which debar the Indian Nationals from the practice of medicine and dentistry, as an intolerable insult to the Indian Nation, and as derogatory to the dignity and international status of the Medical and Dental professions of India and as subversive of the economic organisation of the professions.

2. This meeting of the Medical profession of Bombay, while insisting on the principle of International Reciprocity in all matters relating to the rights of duly qualified medical men, regarding Registration and Practice, extends to the exiled German Jewish duly qualified doctors, who have recently come to Bombay for seeking asylum, their heart-felt sympathy in their misfortune as the result of political persecution, and as an earnest of their practical hospitality, they hereby solemnly declare that they would not be a party to any discriminatory action seeking to single them out with a

view to debar them from the practice of medicine in this country.

3. This meeting urges upon the Government of India and the Central Legislature the pressing need of passing an Act to control the practice of medicine and dentistry in India by Non-Indian doctors and dentists, and to restrict in future the practice of medicine and dentistry in India to the Nationals of India on the lines laid down in the Laws of all civilised countries. In particular, this meeting recommends that the Act should lay down restrictions on Non-Indian doctors and dentists, including those of the British Isles and Possessions other than British India, as regards Immigration, Naturalisation, State Examinations in Medicine and Dentistry, and Registration of all Non-Indian applicants for residence and practice in India.

4. This meeting further recommends that the Central and Provincial Medical Acts be so amended as to safeguard the legitimate rights of the Medical and Dental professions in India, as laid down in the foregoing Resolutions,

5. This meeting appoints a Standing Committee, with power to co-opt, consisting of the following members :—

Drs. A. P. Bacha, Chairman, G. V. Deshmukh, V. R. Khanolkar, A. S. Erulkar, S. K. Vaidya, J. J. Mody, C. L. D'Avoine, J. M. Damany, M. B. Thakore, and K. K. Dadachanji, Secretary.

The Committee shall continue to function till such time as the objects mentioned above in the foregoing Resolutions are effectively implemented.

6. This meeting authorises the Chairman to forward copies of these Resolutions to the Central and Provin-

cial Governments, Legislatures, Medical Councils, and leading Medical Associations and Foreign Consuls in India for information and necessary action.

7. This meeting authorises the Chairman to forward copies of these Resolutions to the press, both lay and medical.

Vizag Medical College Day.

The College Day of the Vizagapatam Medical College was celebrated on 24-2-'34 with great enthusiasm by the students and the staff of the College with Professor Sir C. V. Raman in the chair. A large number of the "old boys" of the institution and the elite of the town attended the function.

In this connection a Clinical Exhibition was arranged in the College displaying in a manner that was easily comprehensible to the lay public the most recent development in medicine and surgery.

After tea and light refreshments at 5 p.m., the guests assembled in a public meeting in the College.

In requesting Sir C. V. Raman to take the chair, Major J. A. W. Edben observed that the College Day celebration every year marked a milestone in the progress of the institution. The College had passed through very critical times during the previous two or three years when its very existence had been threatened. But those troublous times had been tided over and with the perceptible improvement of the finances of the Government, the College might hope for a brighter future. The inspecting offices of the newly constituted Indian Medical Council would soon be visiting this institution and the Principal expected that the institution would be found satisfactory.

Professional medicine seemed to be holding its own in the country and he believed that whatever might be the future of other professions, the medical profession was bound to have a secure footing, with always a progressive future to look forward to.

Sir C. V. Raman humorously observed at the outset that doctors and lawyers belonged to a category for which we had great admiration and from which we would always wish to be as far away as possible. All the same, he had a very great respect and reverence for medical men because there were several among them who had given up medicine and become eminent scientists. One great merit of a medical man was that he had to deal sympathetically with all classes of people. The medical man was perforce brought into contact with all branches of science, and the result had been that from a long time ago, medical men had been in the forefront of science. Dr. Thomas Young in the early 19th century had drifted from medicine and become a pioneer in physical science. The greatest achievement of medicine was that it had given us very eminent scientists.

The art of medicine brought medical men into contact with many aspects of knowledge, the greatest of which was a knowledge of human nature. In spite of all the marvellous and profound development of scientific knowledge, the study of life excelled that of inanimate matter. The study and practice of medicine and surgery also brought men into contact with all branches of science, which bred a certain catholicity of outlook. The early part of the 20th century had witnessed a great advance in the knowledge of physics and chemistry, but the remaining part of this century would witness the triumph of biology and mental science. We stood on the brink of a

new era of scientific research. With all the marvellous advance of modern scientific knowledge, the phenomenon of life had still to be properly understood; the most wonderful thing in human life was that we were alive and capable of thinking. Whatever was the use of trying to discover the nature of the proton and the electron, if we did not try to understand the nature of our life? The real challenge to the human spirit to-day was in the trial to bridge this gap between our knowledge of the exact sciences and our knowledge of the facts of life and a recognition of intelligence, volition, etc.

THE PRIVILEGE OF THE MEDICAL MAN

The medical man had the privilege of working in this borderland of knowledge. One of the most important advances in medical science was the recognition that the state of our mind controlled our physical well being. The state of our mind was an important factor in our health and disease. Nature itself had very great curative powers. Examples of faith cure were not wanting. Mere suggestion and psychological influences had a good deal to do with health and disease. The effect of psychological influences on disease were very great and it was a subject worthy of further study and it would be the greatest future achievement of medical science. Gandhiji's recent fast was an outstanding example of the triumph of the spirit over the flesh. The human mind could achieve miracles such as medicine and surgery could not achieve. Science was certainly greater than its official expression, and truth had absolutely no barriers. The path of truth should be followed wherever it might lead us.

Sir C. V. Raman hoped that medical men would cultivate the spirit of

genuine scientific research. Like all other professions that of medicine might easily be converted into a trade unionism or a stronghold of orthodoxy. It might of course be useful and successful, sometimes, but in the long run humanity stood to gain by the cultivation of the attitude of eagerness to hear the truth, investigate it and respect it from whatever channel it came, and reject untruth. How often did we find that there had been a violent division of opinion on certain topics! One section in India respected tradition and traditional knowledge and looked to Ayurveda; another section rejected this and accepted only the Western system of modern medicine. After all, he alone was a really medical man who succeeded to effecting a cure. In the search for truth there should be a tendency for rival schools of thought to come together for mutual benefit. Pure science was one thing and the art of medicine was another. Let us take truth whether it came from the East or the West and cultivate a characteristically independent attitude which would respect tradition and traditional knowledge on the one hand and imbibe the modern scientific development of the West on the other, with a view to blend the two harmoniously to build up knowledge that would win the respect of the world and establish in India a distinctive school of medical research.

Mr. M. Subba Rao, Honorary Secretary of the Vizagapatam Medical College Students' Association, then presented the report of the Association for the year 1933-34, which dealt with the activities of the Association and *inter alia* pleaded for free medical treatment to students of the College in the King George Hospital and for greater accommodation in the hostel.

Toasts of the Andhra University, the College and the Old Boys were then proposed and responded to.

BULLETIN

OF THE

SOUTH INDIAN MEDICAL ASSOCIATION

APRIL 1934.

Diagnosis of Dyspepsias of Organic Origin.*

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Disorders of digestion are some of the commonest troubles of man. And unlike diseases of other systems, digestive troubles are peculiar in having a very limited symptomatology. A patient's chief complaint in these states is pain in the upper abdomen, generally localized in the epigastrium or round about it. All diseases associated with the digestive tract were known as dyspepsia. As knowledge of the physiology of digestion progressed, it was found that in some cases these symptoms were associated with demonstrable lesions in some part of the tract, while in a large number no such lesion was present. Digestive disorders were therefore divided into two broad groups, organic and functional. While organic dyspepsia always implies the presence of a structural lesion, the functional one does not necessarily mean its absence. For, as our knowledge advances, many of the latter have been gradually transferred to the former. By the term functional dyspepsia, we generally mean disorders of digestion where we have not yet discovered the causative lesion, or where the lesion might be far away from the gastro-intestinal tract. It is important to bear in mind that both these conditions are equally common. The physician who would successfully treat the cases of these

disorders should be able to know into which of these groups his patient falls. Before one could decide that a case is functional, one should have an accurate knowledge of the diagnostic features of the strictly organic lesions and a large acquaintance with the disorders of other systems.

To know that a particular case of dyspepsia is functional or organic is sometimes simple and obvious. Often a definite answer cannot be obtained in spite of all the modern methods of investigation of gastric disorders. How difficult this problem is can be known from a brief survey of the history of the gastric disease. We owe the knowledge of the existence of gastric ulcer as a clinical entity to the great French pathologist Cruveilhier in about 1830. For some years after that, all gastric disturbances were generally ascribed to ulceration which was supposed to be a very common disease. Later, it was held that most of the symptoms associated with ulcer were not secondary to it, but were in themselves disease processes. This was believed to such an extent that in most European countries the majority of cases of gastric disorders were more and more thought to be 'functional'. With the advent of modern abdominal surgery, it was found that ulcers were much more frequent than was at that time considered. And the pendulum swung so far that people were getting to be obsessed with the idea that ulcer was the one cause of chronic dyspepsia and hyperacidity, however mild they might be, and that operation was the only remedy for such cases. It was a very alarmist gospel but fortunately, it has had its day. It was very useful in so far as it suggested the necessity for careful examination of all cases of gastric disturbances. The profession now realizes that ulcers commonly cause chronic gastric disturbances. But they also know that well-marked

* University Extension Lectures, 1934.

and troublesome symptoms are often associated with functional disease, and that functional disturbances play a very great part in gastric work.

The symptoms of Gastric Disease.— It has already been mentioned that the symptoms are not many, though they might vary in different patients. Further all cases of indigestion manifest more or less similar symptoms whether the condition is functional, organic or extra-gastric. In practice all the important symptoms of gastric disturbance could be briefly catalogued under half a dozen heads. They are:—

1. Symptoms of gastric irritation due to the underlying vagotonia:—

- (i) Disturbed appetite
- (ii) Epigastric distress
- (iii) Heartburn
- (iv) Flatulence and belching
- (v) Regurgitation.

2. Discomfort and pain in the upper abdominal region.

3. Nausea and vomiting.

4. General symptoms such as headache and depression.

It is not necessary to dwell on these symptoms in any great detail. The presence of one or more of these symptoms indicates that there is some gastric disorder. Beyond that we rarely learn much. The view that particular symptoms indicate specific lesions is not borne out by experience and is often the cause of errors in diagnosis. It might be mentioned at the outset that lesions in the stomach excluding cancer are remarkably free from general symptoms. Strangely, they are again very remarkably free from nervous symptoms. Food and digestion

are to a great majority of people sources of great enjoyment and satisfaction. And anything which interferes for long with the enjoyment of food and proper digestion would be reasonable ground for depression and nervous irritability on the part of the subject. Fortunately it is not so. There are very many dyspeptics who are more or less complete recks in general health and nervous stability. But they are a class apart and they suffer from the most troublesome of maladies known as "Nervous dyspepsia" which is chiefly a psychic affair.

Of the other symptoms, the most important is pain and discomfort. This is present in all disorders of the stomach. Sometimes the pain may be severe, or it might only amount to a vague discomfort. On the whole severe pain is not very common. Where pain is definite and severe, organic lesions are generally less evident. In recent years with the unduly great emphasis that is laid on peptic ulcers, detailed description of the pain is usual in lectures and text-books. A definite knowledge of the type of pain is certainly useful in the diagnosis of peptic ulcers. But there are some surgeons and also physicians who are prepared to diagnose a case on the strength of the history of pain and recommend operation on its strength. This is not always safe. The points that are taken into consideration are (1) the time relation to food, and (2) its response to food. The nearer the ulcer is to the cardiac end, the sooner the pain sets in after food and *vice versa*. When the ulcer is near the pylorus or in the duodenum, the pain comes so late after the taking of food that it almost coincides with the time for the next meal. In other words, it sets in when the patient should be hungry. Hence the term *hunger pain*. This idea is confirmed by the fact that the pain is almost fully relieved by

taking food, when hunger is satisfied. It is perfectly true that duodenal ulcer is sometime or other characterized by this definite hunger pain. But this pain is not specific for this condition. Identical pain is experienced by patients without any ulcer, but who exhibit mere hyperacidity of the stomach. Another feature of the pain of duodenal ulcer is its recurrence in the night. The patient is generally comfortable and free from pain after his night meal. He goes to sleep without any thought of pain. But sometime late in the night, he is disturbed by the reappearance of the pain. This again is noticed in mere hyperacidity. The continued absence of this night pain is against a diagnosis of duodenal ulcer. But its presence is not pathognomonic of ulcer either. The presence of pain or discomfort is not a conclusive evidence of duodenal ulcer. But most of these patients also complain of tenderness. When present it is of great diagnostic merit.

This tenderness is of two kinds. (1) The tenderness in the epigastrium which is due to the increased sensitiveness of the solar plexus. This is regularly observed in the presence of any active upper abdominal lesion. And (2) the sharply localized tenderness with muscular defence precisely over the site of lesion in the stomach or in the duodenal cap. This is particularly marked in deeper lesions. The tenderness may be superficial or deep. The superficial tenderness may appear often in hyperaesthetic spots which resent even gentle touch. The site of superficial tenderness is not very important. It is generally in the epigastrium, but it may be in the midline, or to one side or the other. Sometimes it is nearer the umbilicus. It varies in different people. But it is constant for the same person. High-strung patients often complain of this superficial tenderness. It is therefore

important to take some trouble to verify the exact site. When the pain is associated with ulcer, the patient will always point to the identical spot at different sittings, whereas in other cases, the site would vary on different occasions. While eliciting this sign, it is better to watch his face rather than depend on his answers. This pain when present may be so severe that some patients would wear their clothes loose. This superficial tenderness may not be constant. Indeed it is rarely so. But practically all true cases of ulcer have this sign sometime or other in the course of their illness. Its absence at the first examination is not diagnostic. But it should be looked for at subsequent examinations. The presence of deep tenderness is a very important distinguishing feature of organic lesions. Its presence in any area in the abdomen points to a lesion. But its absence at any time does not contra-indicate such diagnosis, since this tenderness may be absent in a few cases. On account of the importance that is attached to the presence of pain and its character in the diagnosis of ulcer, it would be useful to summarize the correct knowledge.

Gastric ulcer.—Pain is generally in the epigastrium. Occasionally it may be only in the back or the chest. This is particularly so when the lesion is higher up in the lesser curvature. The pain cycle has four events in the following sequence, food-transient relief—pain—comfort. (Contrast this with the late and lasting pains of duodenal ulcer.) The pain is relieved by rest, hot application, vomiting, food and alkalis. It is aggravated by indiscreet diet, fatigue, smoking, and nervous and emotional upsets.

Duodenal ulcer.—The pain is generally a sensation of gnawing or painful “gone feeling” in the epigastrium. The cycle of pain has a triple rhythm, food-

relief-pain. In some patients burning sensation or gastric distress takes the place of pain. The pain is fully relieved by food, alkalies and rest in bed.

Nausea and vomiting.—Vomiting is generally present in some degree in almost all dyspeptic conditions. In assessing the value of this symptom it is necessary to remember that it is merely a further stage of nausea. Some patients stop with nausea and its presence signifies the same as if vomiting actually occurred. Therefore a history of nausea is just as important as one of vomiting. Vomiting is much more common in acute conditions than in chronic cases. It is not a specific symptom of any particular gastric disease. It merely indicates catarrh of the stomach, and since most organic lesions of the stomach have also certain amount of subacute catarrh of the mucous membrane, vomiting is found in all cases of stomach disorders. This explains why in peptic ulcers of the duodenum and juxta pyloric region, vomiting is rare, since there is generally no associated catarrh of the gastric mucous membrane. The morning vomiting of bile and mucus of alcoholic gastritis is well known. In ulcers of the proximal part of the stomach, vomiting is generally present. And the vomiting often completely relieves the pain. Whereas in other gastric troubles, though vomiting occurs, the relief from pain is neither so prompt nor so full. In some cases of duodenal ulcer and also in ulcer at the pylorus, vomiting occasionally occurs. But this does not fully relieve the pain.

Hæmatemesis or vomiting of blood is another feature of some gastric disorders. Profuse hæmatemesis may occur in conditions independent of any gastric lesion as in the congestion of early stages of cirrhosis of liver or

purpura. But severe and sometimes fatal hæmatemesis chiefly occurs in acute and chronic ulcers of the stomach. Along with the history of other symptoms of gastric ulcers, the occurrence of hæmatemesis of some degree is of great diagnostic significance. The absence of such history does not necessarily rule out the diagnosis. The coffee-ground vomiting of malignant disease of the stomach is worthy of note. The particular appearance is not certainly pathognomonic. But in the presence of general constitutional signs, this symptom is highly confirmatory.

Other symptoms (not as important).—It is not necessary to say much of the other symptoms, *viz.*, flatulence, heart-burn and loss of appetite. These are present much in most disorders of digestion at some time or other. They may be troublesome or trivial. They are not helpful in the diagnosis nor very much in the guidance of appropriate treatment. Enough has been said to show that no single symptom is by itself diagnostic of organic lesions of the stomach. But in practice, it is really not so difficult to diagnose the various organic lesions with a great deal of accuracy. A careful history of the evolution of the symptoms and a judicious assessment of the totality of such symptoms would rarely fail the experienced physician.

A correct history of the evolution and duration of the symptoms is generally very helpful. The symptoms may be common to many different conditions. But they vary in the setting. It has already been said that the time relation of pain and food is distinctive of some conditions, chiefly of duodenal ulcer. Another point of importance in the history of the course of the disease is the periodicity of the illness. Certain types of dyspeptics constantly suffer from some degree of

illness, or they suffer from prolonged ill-health now and then relieved by uncertain periods of freedom from symptoms. Some others have acute attacks of illness sandwiched between long periods of absolute well-being. This is particularly common of peptic ulcers. This periodicity of the occurrence of attacks of gastric disorder is so characteristic, that the absence of such history in a long suffering patient almost definitely rules out ulcers as the cause of the trouble.

Therapeutic response.—Peptic ulcers respond fully to careful dieting, rest in bed and sufficient administration of alkalis. The effect of these measures is so constant in the relief of pain and other symptoms that when a patient does not yield to these measures in a few days, peptic ulcer could be safely ignored as the cause.

When the history is undependable, or the symptoms are confusing, radiological and other modern laboratory investigations are helpful. It is important to recognize at the outset that these modern methods are not always necessary, nor are they so fully conclusive as some people would seem to believe. They are mere aids mostly, and can never obviate the necessity for a careful anamnesis and investigation of the presenting symptoms. Those who overlook these facts commit their patients to unnecessary expense and avoidable surgical intervention. The two aids to diagnosis are the Fractional Test Meal and Radiological investigation.

Test Meal.—The result of a fractional test meal is sometimes helpful in the diagnosis of the causes of indigestion. But before one attempts to read correctly the report of the biochemist, one should be thoroughly familiar with the frequent variations from the average that is perfectly

compatible with health. In the minds of many, test meal and gastric analysis mean the giving of a test meal and periodic evacuation of the stomach contents upto a particular time and the waiting for the report of the biochemist. In the assessing of the value of the report, the points which require to be noted are (1) the total quantity of residue recovered from the fasting stomach, and its character, (2) the total period over which the contents could be withdrawn, 3 the acidity of the contents, the presence of organic acids, chiefly, lactic acid.

1. The total quantity of resting juice is an important indication of the normal secreting acidity of the stomach. In health the stomach is completely empty in 10 to 12 hours after the last meal. It never contains food remnants from the previous day after fasting during the night. A certain amount of gastric juice is always present during the fasting condition; about 20 to 30 c.c. of a greenish mucoid fluid of neutral or slightly acid reaction could be withdrawn with a syringe. If therefore a larger quantity than 40 c.c. be obtained from the fasting stomach of any person, it is very likely to be pathological. Normal stomach only secretes when stimulated by food or irritant. When the stomach has evacuated its contents into the duodenum, its secretion immediately stops. The fasting stomach therefore usually does not contain much free hydrochloric acid. If a considerable quantity of free hydrochloric acid is present in the stomach six or seven hours after the last meal, it indicates pathological hypersecretion or continuous secretion.

2. The period during which the contents are available for withdrawal. This is generally known by the

inability to obtain further samples. In a few cases some kind of material is available. The disappearance of the test meal is shown by the absence of starch in the samples withdrawn. In test meal investigation at the end of about two hours, there is no meal available in the stomach to obtain with the syringe. In many cases there would be about 5 to 10 c.c. left. Sometimes we come across cases where very large quantities are available, even as much as 200 c.c. At the end of the investigation before the stomach tube is withdrawn, we should always completely evacuate the stomach and measure the contents. Otherwise we do not get any idea as to the residue left behind.

3. *Acid content.*—(i) It is well to remember that about 5 per cent of all people have no hydrochloric acid at all in their gastric secretion. (ii) Many cases of organic lesions in the stomach, chiefly peptic ulcer, give a curve which is not distinguishable from the normal. (iii) We sometimes obtain exactly similar curves in duodenal ulcer and functional hyperacidity.

4. *Organic acids.*—One rarely finds an appreciable amount of organic acid in the presence of the usual strength of hydrochloric acid. It is therefore assumed that the presence of organic acid in any quantity is the result of fermentation of retained food in the absence of hydrochloric acid. Maclean would differ from this view. According to him the presence of lactic acid in the absence of free HCl pathognomonic of cancer. He does not accept the view of fermentation as a cause since he has seen plenty of lactic acid even in very early stages without

prolonged retention, nay, even in rapidly emptying stomachs.

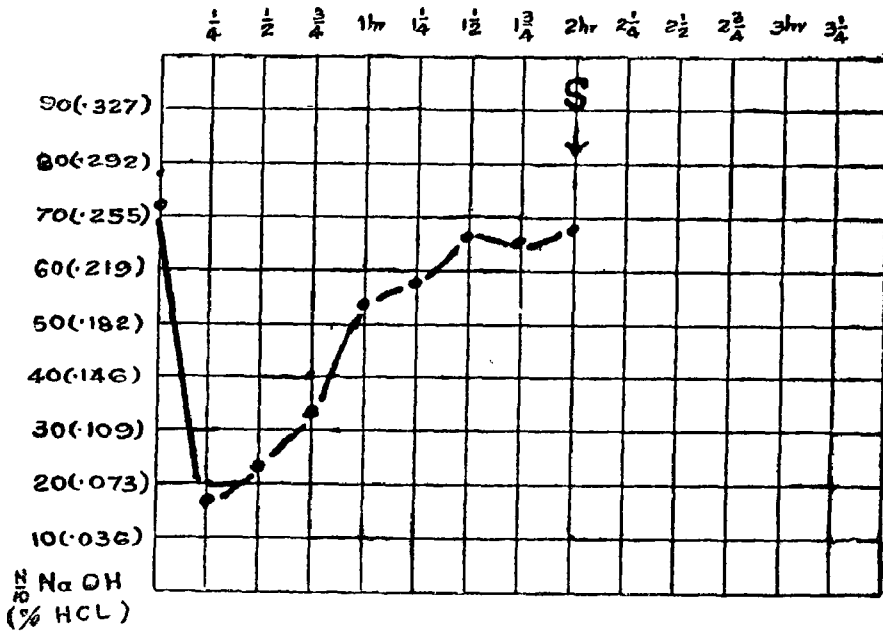
It would thus be seen that apart from the presence of lactic acid in malignant diseases of the stomach, the results of a test meal analysis do not yield any definite data for a sure diagnosis of the causes of gastric disorder. The faith that some people would still put in the figures of gastric analysis for diagnosing peptic ulcers is entirely misplaced. Yet, though gastric analysis as a routine is unnecessary, it is a valuable auxiliary in diagnosis. It frequently gives us an indication of the presence of very active gastric secretion, increased motility of the stomach, delay in emptying or of "after-secretion." It is useful to refer here briefly to the various types of curves that are obtained after a test meal.

1. About 5 per cent of all people show no free acid at all.

2. *Normal or isosecretory curve.*—About 80 per cent of average healthy people, *i.e.*, those who do not feel any symptoms, nor show any signs of disease give a curve in which the resting juice shows a faint acidity of about 0.08 per cent and after the test meal is given, there is a dip in the curve, probably as a result of neutralization by the food, then a gradual increase which reaches the maximum at about $1\frac{1}{4}$ or $1\frac{1}{2}$ hours and falls either steeply or a little gradually. Generally the stomach empties in two hours or so.

3. *Hypersecretory curve.*—A curve in which after the initial dip, there is a continuous rise of acidity. Often plenty of contents are still present in the stomach.⁶ The curve is distinctly

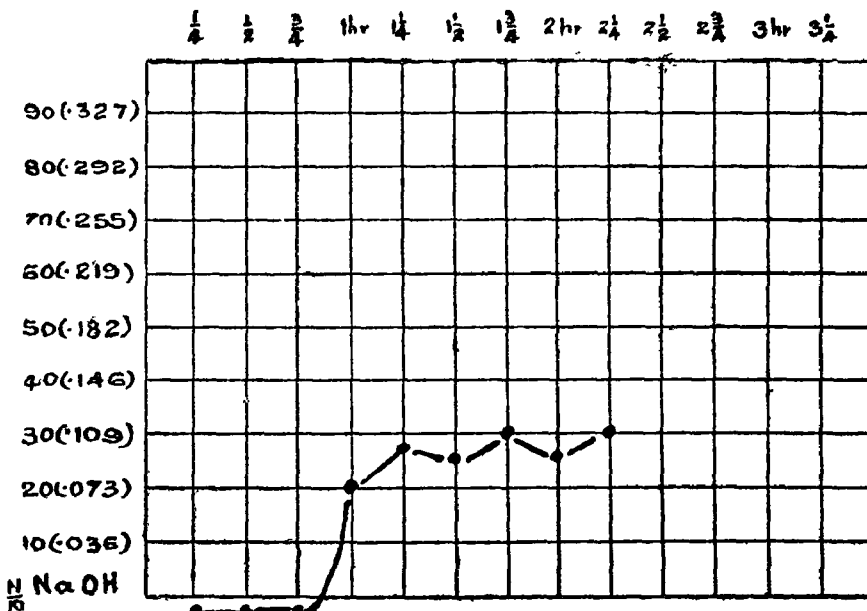
higher than is the isosecretory form. at all. It is then known as the
The curve sometimes does not descend "Climbing" curve. (Graph I.)



Graph I—"Climbing curve" old duodenal ulcer with cicatrization.

4. Plateau type.—The secretion of free hydrochloric acid is of high, but not very high concentration. In these cases, the volume of the resting juice is large, and at the end of two hours and a half considerable contents are

left in the stomach, showing faulty emptying and suggestive of severe pyloro-spasm or actual pyloric stenosis (— Pyloric stenosis of benign origin). (Graph II.)

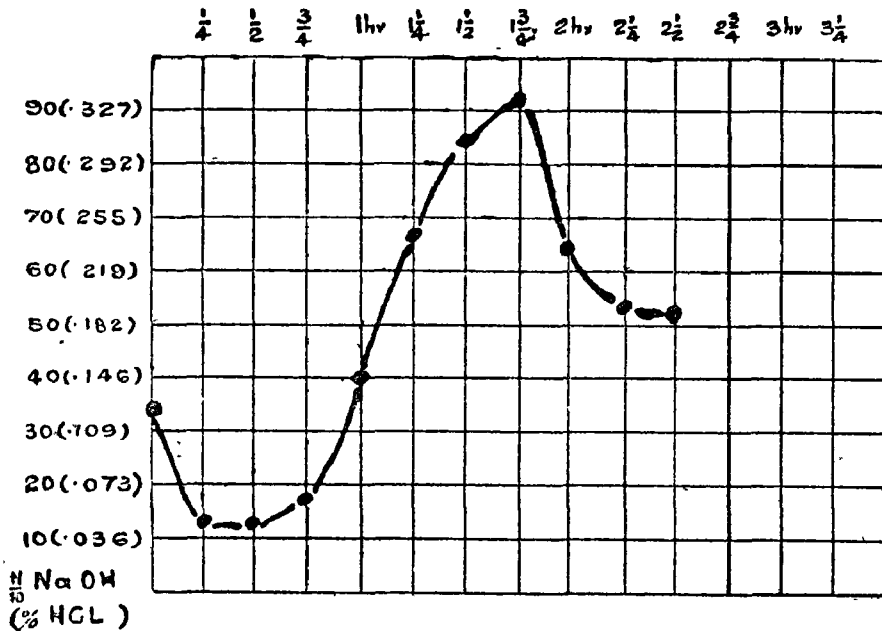


Graph II.—Chronic cholecystitis—"Plateau curve"

5. *Hyposecretory curve.*—A curve where there is no rise at all, but the concentration of acid remains below the normal during the whole course of the investigation.

Test meal and gastric analysis is largely undertaken with a view to make certain whether a patient with dyspeptic symptoms is suffering from peptic ulcer of the stomach or duodenum. It would therefore be useful to

review the results that are obtained in proved cases of ulcers. Generally the curve obtained is one where the free hydrochloric acid concentration rapidly rises to the maximum in an hour and a half, when the stomach empties itself completely. This is highly suggestive of duodenal ulcer uncomplicated by stenosis. But it is certainly not diagnostic. For, identical results are obtained in cases of chronic cholecystitis (*Graph III.*) and chronic appen-



Graph III.—Gall Bladder—adhesions to surrounding structure. *Hyperacid curve.*

dicitis, not to mention its occasional occurrence in certain serious nervous diseases like tabes dorsalis. Another curve which is frequently obtained in these cases is the one where there is moderate secretion which diminishes at the end of an hour and quarter, but increases after two hours. This is suggestive of a strong continuous secretion of acid. This picture is by no means diagnostic of duodenal ulcer, though as already mentioned it is frequently obtained. The utmost that one can conclude from such a curve is that the patient has a plentiful and powerful gastric secretion which requires to be neutralized by treatment. The other curve of the plateau type

with a large volume of resting juice and considerable contents after two hours and a half with a not very high acid concentration is suggestive of mild pyloric stenosis. This opinion would be strengthened if the resting juice contains remnants of a previous meal.

In addition to these various types of curves, it is fairly common to come across definite cases of peptic ulcers with charts similar to those obtained in people with normal health. This is particularly the case when the ulcer is on the lesser curvature of the stomach. Sometimes complete absence of hydrochloric acid has been noted in cases of ulcers. These would often

turn out to be malignant. But achlorhydria has been noticed in simple ulcers, especially where there has been a recent history of marked hæmatemesis.

The fractional test meal has helped very much in the better understanding of the physiology of digestion and it is valuable in the investigation of pathological conditions. But clinically it is not of great value in diagnosis, for the variations in the result are many and the deviations from the normal and pathological are not sufficiently understood. Further, Bell and Mac Adam have shown that the curve may vary greatly in the same patient from day-to-day. And they conclude that "if a low or normal acid curve is obtained on the first examination when the clinical history of a patient suggests hyperchlorhydria, the test should be repeated before a high degree of acidity can be eliminated."

Radiological Investigation.—Of all the newer methods of investigation X-ray examination after Barium meal will in skilled hands supply an exact diagnosis in many gastric lesions. But a word of caution would not be out of place here. Such an investigation should never be undertaken unless it is absolutely safe for the patient. When he is very ill, this examination should be postponed. For instance, when pain is a feature in a case, the examination should be withheld till the patient is free from severe pain. And after a severe hæmorrhage several weeks should elapse before this method could be thought of.

By means of X-rays, we can obtain some idea of the tone of the stomach, and can visualize the presence of acute or chronic inflammatory lesions, and new growths in and around the stomach.

Tone of the Stomach.—As shown by X-ray after full barium meal, the stomach is a J-shaped organ whose long limb lies just over the left border of the spine and whose short limb curves across and upward to the opposite border of the spine. Normally the lowest point is from 1 inch below to 1½ inch above the intercristal line. This is the position of the orthotonic stomach, *i.e.*, the stomach with a normal tone. The hypertonic stomach lies abnormally high and its tone is greatly increased. A low stomach sagging down to the pelvis is known as hypotonic. These appearances are not always truly diagnostic, for a stomach which appears hypotonic in a radiogram may be found to be normal or even hypertonic on operation. The tone is very variable in the same position.

Organic lesions.—The evidence supplied by X-ray may be direct or indirect. It is direct in new growth of the stomach and many cases of ulcers of the stomach.

New Growths.—The characteristic appearance is the filling defect. The outline of the stomach is irregular. This irregularity is persistent and does not change during the examination or from time to time. The irregularity in the outline starts near the pyloric antrum and progresses upwards along the greater or lesser curvature. There is no pyloric obstruction, the pylorus remaining tubular, rigid and patent. Pyloric obstruction due to new growth occurs chiefly from extragastric lesions usually of the head of the pancreas or an enlarged gall-bladder.

Inflammatory lesions: (Ulcers).—(1) X-ray should supply evidence of the exact site of the ulcer and the emptying tone of the stomach, the latter is very useful in deciding details of subsequent treatment.

(2) X-ray examination is of value in supplying evidence of important causal factors outside the stomach and duodenum, *e.g.*, chronic appendicitis, megacolon, diseased gall-bladder and infections at the root of the teeth.

Gastric ulcer.—Direct evidence is the ulcer filling which shows as tent-like projection on the lesser curvature with a persistent indentation or incisure on the greater curvature opposite to the projection. This incisure is produced by the spasm of the circular fibres of the wall near the ulcer. In small or shallow ulcers direct evidence may not be obtained. But the persistence of the incisure on repeated examination together with other characteristic feature would be strongly suggestive. Specks of barium retained in the rugæ of a partly emptied stomach seen on the greater curvature should not be mistaken for ulcer-filling.

Further indirect evidence is supplied by the feebleness or entire absence of motility or peristalsis. Maclean would lay great stress on this feature. In the normal individual the peristalsis starts as a shallow small indentation on the great curvature some two-thirds of the way, and slowly travels downwards. A lesser similar indentation and wave on the curvature is seen at the same time. As the wave progresses, the indentation deepens till it reaches the pylorus, when it disappears to be succeeded by another similar wave. The time of travel is from 8 to 12 seconds, and it is not usual to see more than two waves at the same time.

Duodenal Ulcer.—The duodenum is described in three portions for convenience of reference. Of these only the first part is usually the site of ulcers. On account of its shape, the radiologists call it the "duodenal cap." This part of the duodenum has definite muscular walls which act in rhythm with the pylorus. The ordinary

peristalsis which passes down the antrum to the pylorus generally acts as a "food mixer." But a stronger wave of contraction which produces indentation on the walls of the stomach has an expulsive effect, so that when the wave reaches the pylorus and relaxes, the pylorus also relaxes and allows food to trickle through till the duodenal cap is full and distended when the pyloric sphincter closes behind. The distended cap, normally is rounded and assumes the shape of a small onion. It is separated from the pyloric antrum by a narrow band of translucent tissue which does not show any trace of barium. This appearance of the cap and its alterations are of particular importance in the X-ray diagnosis of duodenal lesions.

Before dealing with the evidence of duodenal ulcers, it is proper to refer here to the ulcers that commonly occur at the other end of the pylorus. This is sometimes known as pyloric and pre-pyloric ulcers. Both duodenal ulcers and pyloric ulcers are together sometimes called juxta-pyloric ulcers, since they are very similar in their symptoms. We rarely obtain any direct evidence of ulcer at pylorus. We have to depend on indirect evidence only. This depends entirely on the appearance and emptying time of the stomach. These vary according to the duration of the ulcer and the consequent tone of the stomach. When an ulcer is present, the sphincter is in spasm, so that only occasional small quantities of food are allowed to pass into the duodenum.

1. In the early stage, the stomach is hypertonic, is actively motile and the emptying time is normal. The duodenal cap is involved in the spasm and does not fill out. The pyloric region is tender.

2. With commencing fatigue, there is less tone. The stomach is hypermotile to start with. It then relaxes,

definitely prolonging the emptying time.

3. Stage of complete exhaustion, with atonic, non-motile low stomach. There is marked delay in emptying. The duodenal cap is not seen. Local tenderness is present. In old cicatrised pyloric ulcers, there is extreme delay in emptying, but there is no local tenderness.

• In lesions of the duodenal cap without involvement of the pylorus, the picture seen is different. No direct evidence of the ulcer, comparable to that of the stomach, is obtained here. On account of the small size of the organ and due to lack of impediment in front similar to the pyloric sphincter in the stomach, the first part of the duodenum is nearly filled and well seen. What evidence is obtained is all indirect, and of this the most important is the marked alteration in the shape of the cap which is contracted or grossly irregular in outline. A word of caution is here necessary about the significance of the irregularities of the cap that are often seen in X-ray pictures. The irregularity of the outline is merely evidence of spasm. It is not directly due to ulcer. Spasm occurs in many conditions other than ulcer of the duodenum. The irritation of the ulcer produces more or less constant spasm, whereas the spasm due to other causes are not persistent. They are fugitive and erratic. To be sure therefore, that the irregularity of the outline is the result of an ulcer, the irregularity should persist. This can be demonstrated in two ways. One is to put the patient on bromide and belladonna for a few days. When belladonna has been pushed almost upto toxic dosage, repeat the examination, both under the screen and by taking pictures. If the irregularity persists, it would indicate organic lesion. The other method is to take a rapid series of six pictures at

intervals of a few seconds. If an ulcer be present the irregularity would persist from film to film. If this fact is overlooked, a number of patients would be necessarily alarmed by a false diagnosis of ulcer. The other pieces of indirect evidence of duodenal ulcer relate to the appearance of the stomach. Generally the stomach is hypertonic showing active motility. There may be the "cup and spill" appearance due to spasm of the oblique muscle fibres. The stomach empties very rapidly within half to one hour of the meal. But these factors should be taken with a good deal reserve, for other conditions might show identical signs of hurry and hypertonicity.

Extra-gastric conditions which produce duodenal irritation are inflammatory lesions of the gall-bladder and the pancreas. The inflammatory conditions of the pancreas which produce changes in the appearance of the duodenal cap are rare. They are cysts or tumours of the head of the pancreas. But gall-bladder conditions are very important for two reasons. X-ray examination might show appearances exactly similar to those of duodenal ulcer. And further the dyspeptic symptoms of chronic cholecystitis often simulate those of ulcer of the duodenum.

Together with the changes in the appearance of the duodenum, the cap and the pyloric antrum may be drawn up into the right hypochondrium, suggestive of adhesions between the duodenum and the gall-bladder. When the abdomen is opened, such adhesions are not always found. The mechanism of this displacement is not clear. A fairly frequent appearance of the duodenum in these cases of inflamed and distended gall-bladder is the flattening of the cap on one side due to the impress of the gall-bladder.

Extra gastric conditions.—I have hitherto dealt with dyspepsia due to lesions in the stomach. But it is important to know that indigestion due to organic lesions is far more commonly the result of lesions elsewhere than in the stomach. The two conditions that commonly account for it are chronic cholecystitis and chronic appendicitis. Of all lesions that produce dyspeptic symptoms, chronic cholecystitis is easily the commonest.

While reviewing the history of all cases that he operated on for gall-stones, Moynihan was struck by the similar grouping of symptoms which were presented by his patients in their illness. And he called the attention of the profession to this syndrome for the first time in 1908 when he described it under the term "the inaugural symptoms of Cholelithiasis." His original description of these symptoms still forms the basis of all descriptions of chronic cholecystitis. For, it is now recognized that the symptoms then described were really not due to the presence of gall-stones, but the result of the inflammation that preceded it and predisposed to it.

Chronic cholelithiasis is far more common in women than in men. The prominent symptoms are flatulence and nausea. The indigestion and flatulence continue for months if not years without any remission. The periodicity observed with ulcers never occurs in these cases. The symptoms are aggravated by meals and is not much relieved by alkalis, except for the temporary relief obtained from belching after taking soda bicarbonas. These patients complain of dull aching in the right hypochondrium or epigastrium. Sometimes they only complain of a pulling or a dragging sensation in the right hypochondrium. Contrary to usual belief, the ordinary mild cases do not suffer from colic, nor pyrexia.

Jaundice never occurs. On palpation, tenderness is elicited over the lower edge of the right eighth costal cartilage. D. W. Carmalt-Jones who has described this sign believes that it is as definitely diagnostic of cholecystitis as Mc Burney's sign in an appendicitis. Occasionally a similar tender spot is present on the left side in ulcer. But this is not so constant as the tender spot of cholecystitis. In some cases the skin of the eighth right dorsal segment is hyperalgesic to pin-rick. G. Levene has described a new sign in gall-bladder disease; a tenderness in the right costovertebral angle. The sign has been found to be positive in over 90 per cent of patients showing X-ray evidence of gall-bladder disease. The conditions for which chronic cholecystitis may be mistaken are chronic gastritis, duodenal ulcer and cancer. Persistent nausea is generally due to carcinoma of the stomach, gastritis or cholecystitis. The diagnosis of carcinoma has already been dealt with. There is no abdominal tenderness in chronic gastritis with achlorhydria. The tenderness over the gall-bladder is characteristic of cholecystitis. When cholecystitis develops in people with constitutional hyperchlorhydria, the symptoms may closely simulate duodenal ulcers. The signs that have been already described and the X-ray changes in the 'cap' should help diagnosis.

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