

may be detected which has so far caused no symptoms. In such cases a cardiogram is well worth doing.

Prognosis

As already stated, the prognosis in any individual patient should be based on as many points as possible. The evidence of the state of the myocardium as given by the cardiogram is one of them, but is only a relatively small part of the picture. It is probably correct to say that the larger and more extensive the infarct, the more serious is the outlook. A return to normal in a curve showing ischaemic changes is a good point. At one time it was said that bundle-branch block carried a very bad prognosis, but this is by no means always the case, for the lesion causing it may be quite local. On the other hand, it usually means that there is widespread disease too. If, in following a case with serial curves at intervals, progressive deterioration is found, even when there is not much to be noted on clinical grounds, the prognostic significance is obviously bad.

The psychological effect of the cardiogram is not inconsiderable. The general public has begun to learn something about this method of investigation. To a nervous, apprehensive patient who has become heart-conscious and who may be the subject of a cardiac neurosis the demonstration of a normal curve may mean a good deal in restoring his confidence and peace of mind.

To give an account of the many and various types of curve met with nowadays is quite beyond the scope of this survey. My aim has been to give the ordinary medical man some idea of how far and in what type of case the cardiogram is likely to help in diagnosis and prognosis, with some indication of how that help is obtained. The precise details have not been touched on. These are best left to the cardiologist. The pitfalls are many, and "a little learning is a dangerous thing."

The subject at the moment is changing and complex. The interpretation of the curves is a matter of expert experience. But I believe that out of the present complexity a measure of simplicity will emerge far clearer than any that has hitherto existed.

Figs. 2, 3, and 4 were redrawn by Miss Mary Waldron from East and Bain's *Recent Advances in Cardiology* and are published by kind permission of Messrs. J. & A. Churchill, Ltd.

THE ROLE OF THE MEDICAL LIBRARY

During the annual conference of the Library Association held recently in London a meeting of the Medical Section was arranged at the Wellcome Research Institution on September 20 to discuss "The Role of Libraries in the Advance of Medicine." The chair was taken by Mr. W. R. LE FANU, librarian of the Royal College of Surgeons.

Sir CECIL WAKELEY, P.R.C.S., said that the conference celebrated the centenary of the public library movement in Great Britain. But many medical libraries, of course, were much more than a century old. They varied greatly in type and function. Some were the private working-places of the staff of a particular institute, others were freely open to the whole profession, others again provided a reference service for readers living at a distance. Many attempts had been made to co-ordinate their activities. More than 40 years ago, when he first came to Oxford, Sir William Osler founded a Medical Library Association of Great Britain, but it proved to be short-lived. Twenty years later Sir D'Arcy Power promoted a measure of co-operation among the medical libraries of London. The Royal Society of Medicine had organized, with the Rockefeller Foundation, the Central Medical Bureau, to act as a clearing-house for readers' inquiries, to obtain the

necessary literature from associated libraries and pass it on to all parts of the world in photographic reproduction.

The Medical Section of the Library Association, founded in 1947, acted as a link between medical librarians and provided a forum for the discussion of common problems. Under its auspices training lectures for medical librarians had been arranged, advice had been prepared for the new hospital medical libraries which were being promoted by the regional hospital boards, and a pool for the distribution of duplicate books and periodicals had been organized.

Service to readers rather than conservation of books was the keynote of library work. The opportunity had therefore been taken of inviting a number of leading representatives of various interests within the profession to give their views on the present state of medical libraries and on the most urgent needs for their improvement.

Library Services for the Research Worker

Dr. C. H. KELLAWAY, director-in-chief of the Wellcome Research Institution, said that, in general, medical research was a continuous process—an accumulation of facts until the time was ripe for their co-ordination and for the making of some generalization on which further research could be based. It was rare for scientific discoveries to break entirely new ground, and it was part of the library service to make sure of the connecting links. Few scientific workers could have fully at their command all that had been done in their fields in the past, and the average worker, at all events, needed the aid to his memory which was afforded by an efficient library service. But even when such service was at hand it was the duty of the worker himself to make a critical study of the relevant literature. It was quite common to find papers describing observations and results which, unknown to the writer, had been published perhaps some years before. However, there were some advantages in the repetition of earlier work, and scarcely ever was this done by a worker of ability, with new tools at his disposal, without some new angle of truth being brought to view.

Dr. Kellaway touched on the difficulty of an efficient library service when the units of an organization were scattered over a considerable area. It was easy to provide a good service if all the workers were gathered in one building, but when they were geographically scattered and it became necessary to build up a series of libraries, none of them as efficient as the central one, the difficulty of the task became obvious.

The Role of the Librarian

Dr. HUGH CLEGG, Editor of the *British Medical Journal*, said that medical librarianship was now a highly skilled profession, for which an exacting training was necessary. A library that was solely a storehouse for books and periodicals had only a limited use for those ultimately responsible for the advance of medicine. The storehouse must be converted into something dynamic, and the instrument for this purpose was the trained librarian. He would have preferred the title of the discussion to be "The Role of the Librarian in the Advance of Medicine," because it was on the ability, the character, and the industry of the librarian that the usefulness of a library depended.

The earliest libraries were in temples, and the first librarians probably priests. Later the monasteries became storehouses of learning—collecting, preserving, and cataloguing volumes. The modern library had "stemmed" from the temple and the monastery, and the idea of a jealously guarded collection had persisted into modern times. The 13th edition of the *Encyclopaedia Britannica* (1926) stated that "libraries are now coming to be regarded more and more as workshops." Just when medical libraries began to be converted from storehouses to workshops he did not know. He suspected that the most potent cause of this change had been the need of the research worker for an efficient collaborator in the library, thus compelling advances in library technique and the emergence of a new type of librarian who was something more than a mere cataloguer. One of the functions of the librarian was to teach the research worker how to make the fullest use of the resources of the medical library. The librarian must have a

wide knowledge of medical literature and a sound judgment of the trustworthiness of sources. Dr. Clegg here mentioned the danger of the overloaded bibliography. He had at one time supposed that the author of a paper had at least dipped into the authorities whose references he cited; but there were cases in which the author had done little more than ask the librarian to compile the list for him. The librarian should have the courage to say to the author, "Is your bibliography necessary?"

As a medical editor he had a strong feeling of kinship with the medical librarian. Neither of them was a research worker, but they did try to keep the party clean. A distinguished journalist had said to him that an editor had one most important duty, that of saying "No." His responsibility for exclusion was as great as, or greater than, for inclusion. The librarian, too, must be prepared to say that he would not have a certain book or periodical in his library. The selection of periodicals was a very onerous task, especially now that textbooks were out of date as soon as they were published and the periodical had become more and more important. The librarian was increasingly making his voice heard in all matters of documentation, and without efficient documentation no scientific advance was possible.

The Library User

Mr. ZACHARY COPE spoke as a library user who had received the most ungrudging help from medical librarians. Libraries could diffuse medical knowledge more quickly than any other means yet devised. Where such diffusion of knowledge was lacking, the result was marked and grievous. He had recently had the duty of reviewing some German textbooks on surgery, and had been surprised at the lack of knowledge concerning some things which were common property in this country—the use of penicillin, for example. Many German libraries had been destroyed during the war and free communication had been interrupted, and although much was now being done to remedy these evils the effect on the literature was still woefully apparent.

Unquestionably the part of the library which was most valuable to the research worker was that concerned with current periodicals. There were 1,500 or more medical journals, and it was impossible for any library to carry more than a small proportion. It saddened him sometimes to find young men depending on the librarian to look up their references for them. To look up one's own references was a valuable means of education.

Professor E. C. DODDS spoke of the library of the Royal College of Physicians, some part of which dated from before the Great Fire, and which had had an uninterrupted existence since 1670. In that library were to be found works on every subject, not only on medicine, but on astrology, theology, and Oriental philosophy. The library was now being carefully surveyed by the college authorities. It was felt that there was no point in making it a modern library; nevertheless, this extraordinary collection of books would be of very great value to research.

Mr. W. A. LEE spoke as the librarian of an old provincial library founded by a few physicians and surgeons in Liverpool about 170 years ago. In these changing days it was difficult to foresee what might happen to these old-established libraries, founded privately and depending for their income on the subscriptions of members. The question was how they could continue to play their part now that new libraries were being set up in teaching and other hospitals by the regional hospital boards. There should be some method whereby these collections made many years ago could be kept up to date and be useful for succeeding generations.

Medicine in the Public Library

Mr. GEOFFREY STEPHENS, librarian of the borough of St. Marylebone, described an important scheme whereby each of the 28 London boroughs had accepted responsibility for specializing in their libraries in one particular branch of literature. St. Marylebone, probably because it included Harley Street and about twice as many hospitals as any other borough, as well as central pharmacies and orthopaedic establishments, had been asked to specialize in medicine. He had been reluc-

tant to undertake this, foreseeing the morbid curiosity of some lay readers. But the nucleus of a medical section had been created in the public library. Two years' experience had shown that the demand was chiefly for preclinical literature and some standard encyclopaedias, and that the requests came mainly from hospital nurses, medical students, and those working in medical auxiliary occupations. Quite 90% of the requests were from people in these categories. Whether the policy was a good one or not, it had been better received than he in his reluctance had thought possible. He did not know of any other municipal public library which specialized in medicine.

The idea of a public library specializing in medical literature was criticized from several quarters, notably by Mr. A. J. FIELDER (Staines) and Mr. W. J. BISHOP (Wellcome Historical Medical Library). It was pointed out that it would be absurd to expect library committees, unless there were medical people on them, to build up a useful section. The expense attending it would be very great, and it was well known that, in any economy "push," public libraries were the Cinderella of local authorities. Stock of this kind which a public library could carry must necessarily be inadequate for any serious purpose. Mr. STEPHENS explained that the Association of Metropolitan Chief Librarians had drawn up a scheme whereby £200 a year would be spent on each of these specialized sections, but this was not sufficient in the case of medicine; he was spending very nearly £300, and if that was not enough he would ask for more. He added that the medical books were not exposed on the public shelves.

The Microfilm Service

Mr. G. R. EDWARDS (secretary, Royal Society of Medicine) said that the establishment of libraries in hospitals, teaching or otherwise, was an excellent idea: the facilities provided all over the country were woefully inadequate. For papers appearing in less easily available sources the microfilm documentation service which the Royal Society of Medicine had sponsored might be recommended. A small non-profit-making fee was charged, and the service extended from Reykjavik to Singapore. Hardly any day of the week passed without a filmstrip being dispatched from London conveying information to medical people in distant parts of the world—information which was unobtainable in their local libraries. Mr. Edwards applauded what had been said about the necessity for special training for medical librarians. Speed in obtaining the desired information was often of great importance.

In conclusion the CHAIRMAN said that all the problems attending this subject, including the possible joining of forces of the libraries of the smaller medical societies and the regionalization of hospital libraries, were receiving the careful consideration of the Section.

CHARING CROSS HOSPITAL MEDICAL SCHOOL

The inaugural address of the winter session at Charing Cross Hospital was delivered on October 5 by Dr. Gordon M. Holmes, consulting physician to the hospital, and Mrs. Holmes presented the prizes and certificates. In the absence of Lord Inman, owing to influenza, the chair was taken by Sir John Stewart-Wallace. The new dean, Dr. E. C. Warner, gave an account of the school year.

Dr. Gordon Holmes's brief address was directed chiefly to those who had not yet been through the "mill," though he hoped seniors might profit from some of the lessons which he himself had not learnt until his later years. Students at Charing Cross were fortunate in having joined one of the smaller schools of the University of London. It was true that Charing Cross was looking forward to a larger hospital, but there were many advantages attaching to the small school.

Clinical Observation

He reminded his audience how relatively little even now was known of the phenomena presented in disease. The student might find by his careful examination of a case symptoms or signs not mentioned in the textbook; but this demanded hard work and a discipline of observation not easily acquired.