RHEUMATISM: POSTGRADUATE INSTRUCTION

BY

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Rheumatism may be conveniently defined as a painful disorder of the locomotor system the aetiology of which is obscure. Anatomically, this conception will embrace the joints, the fibrous tissues, and the neuromuscular system throughout the body. Symptomatically, it is no exaggeration to say that it may be applied to the occurrence of pain in every inch of the body—quite literally from the scalp to the sole of the foot.

Very early in my professional life I was impressed by the observation "Beware of rheumatism" by an experienced general physician in the course of his lecture on "Errors of Diagnosis." "Which of us," said he, "has not let out rheumatism with a scalpel?" Osteomyelitis is not the only serious error in differential diagnosis. We recall tuberculous arthritis and scurvy. The tabetic with lightning pains will present himself with the complaint of "rheumatism." Vague so-called rheumatic pains in the limbs will be recognized as the manifestation of trichiniasis by an astute observer who has noted oedema of the eyelids. As a contrast, there is the mistaken diagnosis of progressive muscular atrophy or a dystrophy when rheumatoid arthritis and trophic muscular changes were the correct explanation.

Cardiologists have associated the symptomatology of disease of the shoulder girdle or subacromial bursa with angina pectoris. The subjects of coronary arteriosclerosis have sometimes been regarded as suffering from these lesions for considerable periods. Pain more or less constant in the shoulder region—most commonly the left but often the right—has developed within an interval of three or four months after myocardial infarction and lasted for several years. The shoulder pain has even preceded coronary thrombosis for as long as a year. It is supposed that reflex hypertonus of the muscles of the shoulder girdle plays some part in the simulation of arthritic disease.

Charcot's joints, Paget's disease of bone, and, most tragic of all, malignant disease of the vertebrae or of the spinal cord are other lesions which have been mistakenly regarded as so-called rheumatism. Within a fortnight I saw three examples of carcinomatous metastases, two diagnosed as "sciatica" and one as "brachial neuritis." All three had been under the care of specialists at spas—men of experience at least as considerable as my own. I record these cases in no spirit of superiority, but as providing a salutary and humbling lesson. In all probability, how often must I have perpetrated similar mistakes!

And so while the specialist in rheumatism may be regarded by the layman as a man with rule-of-thumb methods of physical therapy—to us who reflect upon the traps and pitfalls, the difficulties of diagnosis, he must be recognized as an exceptionally gifted member of the profession, in his approach to every branch, to every system.

Aetiology

I ventured to begin with the generalization that aetiology is obscure. It is not surprising that every possible pathological element in the causation or reputed causation of recognized diseases and lesions has been presumed as an essential or necessary factor, with the unfortunate corollary that much work has been undertaken in watertight compartments instead of a determined campaign to correlate in the avoidance of rash generalizations.

We know that degenerative processes, the inevitable wear and tear of structures concerned in locomotion, must in some instances be responsible to an extent which has led to a fatalistic acceptance of the inevitable, the irrecoverable, and to a conclusion merely to make the best of a bad job. The influence of toxæmia waxes and wanes in popularity. Ruthless eradication of teeth, of tonsils, of gall-bladders, of appendices, of pelvic viscera, with resulting disappointment, has on the whole encouraged the complete abandonment of this therapeutic

approach even if the diehards, deprived of any evidence of the influence of removable foci, still invoke the existence of hypothetical toxins in the interior of the gut.

Metabolic possibilities have naturally provided a wealth of hypotheses, whether along the lines of digestive insults with the presentation of all sorts of dietetic regimes, or on the principle of vitamin deficiencies.

Very naturally the endocrines have come in for their exaltation in importance; more especially as the relationship of arthritic lesions to menstruation, to pregnancy, and to the menopause is in some instances acceptable. Climatology one recalls only briefly in passing. It is a factor which almost everybody is prepared to accept as of some influence, but as one which with very rare exceptions has received the most trivial scientific exploitation.

Of recent date the psychosomatic side has been emphasized to an extent which makes an overwhelming appeal to the psychologically minded. That the emotional disturbances engendered by environmental burdens—poverty, grief, worry, and the like—have a distinct relationship to the onset and exacerbations of rheumatoid arthritis requires no emphasis in endorsement. But the majority of us pause to consider whether or no we shall accept so literally the explanation advanced of symbolic presentations of fibrositis as, for example, "feeling stiff and sore" over some grievance or frustration; of "unbending pride" through resentment; of "inability to stoop" or "lower oneself" to a certain course of action; of "getting it in the neck," both literally and figuratively; of representing through "sciatica" the desire to kick somebody, or through "brachial neuritis" to indulge in fisticuffs.

Yet something psychological may be advanced at least in partial explanation. The most materially minded will be prepared to accept the possibility of emotion leading to muscular spasm and tension, or inducing vasomotor changes which bring about localized areas of ischaemia or which lower the threshold of sensitiveness to external physical agents.

I have ventured to suggest that progress in therapy has been retarded by the tendency of men able and efficient in their particular spheres, yet unduly obsessed by their restricted applications, to reduce their sphere of usefulness by remaining in their watertight compartments. Each and every one of their methods of approach may well have a bearing more or less significant in individual instances, more or less applicable to the subject as a whole. Enthusiasm counts for much in explanation of the presentation of therapeutic virtues and the equally numerous pessimistic repudiations, when one specialist working with a new material or method reports dramatic successes and another reports complete failure.

The future health policy, the Government announces, is to include the treatment of rheumatic sufferers. To implement this intention it is proposed to establish and staff a number of rheumatism treatment centres. These will demand the provision of medical practitioners with special knowledge in the diagnosis and treatment of the rheumatic diseases, and it is the opinion of the Empire Rheumatism Council that it is desirable in the interests of the public health to institute postgraduate courses to enable a number of medical practitioners to acquire that special knowledge.

I need not refer to the nomenclature of "the rheumatic diseases" as agreed by the Committee on Chronic Rheumatic Diseases of the Royal College of Physicians (1936), but I venture to think that the brief survey I have presented of the scope of what may be legitimately included, and of the difficulties and possible pitfalls in differential diagnosis, sufficiently indicates the importance of instituting a comprehensive course of postgraduate training.

It is at this stage premature to describe the exact steps which must be taken in the selection of suitable trainees and to decide if they shall possess special qualifications that may be regarded as a *sine qua non*, or to do more for the present than anticipate that training grants will be available from public funds or from other available sources to permit of their whole-time attention. The facilities for appropriate instruction available at teaching hospitals, postgraduate schools, rheumatic treatment centres, orthopaedic centres, and the like are also matters which are at present under consideration; and the remuneration of teachers

employed must also be a necessary item in the scheme that is proposed.

But it may be permissible to give some indication of the syllabus envisaged and to state that, in order to attract the right type of entrant for this specialty, a preliminary course (three months) on general medicine at the Postgraduate College or similar institution should be undertaken especially with the encouragement to take a higher degree or diploma. A suggested syllabus of the course itself may now be outlined.

A Suggested Syllabus

Aetiology.—Survey of the recent trends in aetiological concepts in acute and chronic rheumatism and arthritis, including toxic, metabolic, climatic, dietetic, and traumatic factors and possibilities.

Pathology.—The classification and pathology of acute and chronic rheumatic diseases (including gout and spondylitis). Morbid anatomy and histology.

Applied Anatomy and Physiology.—(a) Surface anatomy: body mechanics and posture. (b) The structure and action of muscles and joints. (c) The skin and its reactions. (d) The blood, the circulation, and respiration as they affect the locomotor system. (e) The nervous system with reference to: (1) Segmental and peripheral nerve distribution. (2) Pain: the methods of causation, transmission, reference, and clinical application.

Radiological Investigation.—The normal radiology of bones and joints. The radiology of the rheumatic and pseudo-rheumatic diseases.

Clinical.—(The chief rheumatic diseases will be dealt with during the course in general medicine. Such "rheumatic symptoms" as occur in poliomyelitis, tuberculosis, gonorrhoea, osteomyelitis, leukaemia, etc., may be mentioned.) Standardized history-taking and the recording of symptoms. Orthopaedic aspects: postural and congenital abnormalities; chronic strain. Neurological aspects: neuritis, prolapsed disks, "hysterical joints," the mechanism of pain reference, muscular dystrophies; "sciatica."

Therapy.—Physical medicine: demonstrations of apparatus and methods in use; remedial exercises and physiological rest; the writing of prescriptions. Re-education of muscles and joints: occupational therapy. Reconstructive surgery of joints. Specialized methods of treatment: gold salts; procaine injections; aspiration of joints. Simple plaster work. Vaccines. Manipulation. The prophylaxis and treatment of acute rheumatic fever.

(N.B.—Practical experience of all the above should be acquired when working as a clinical assistant in rheumatic and orthopaedic special departments or hospitals.)

Social Medicine.—Environment; housing; dietetic, psychological, traumatic, industrial, and occupational factors.

Finally it may be pertinent to recall the close co-operation between orthopaedic specialists and "rheumatologists" advocated by the joint committee of the Empire Rheumatism Council and the British Orthopaedic Association, and the agreement of these bodies in their joint memorandum to the Ministry of Health as regards the organization and, where possible, as regards buildings, for the establishment of a decentralized scheme of out-patient and treatment centres depending upon a central hospital department. It would appear desirable for trainees to spend three months in an orthopaedic centre. The replacement of the title "orthopaedic physician" for "rheumatologist" might well be considered.

EMPIRE LEPROSY RELIEF ASSOCIATION

TWENTY-FIRST BIRTHDAY APPEAL

On April 26 at the Mansion House an appeal for £210,000 was launched at the coming-of-age meeting of the British Empire Leprosy Relief Association (B.E.L.R.A.)—that is, £10,000 for each year of its work. The Lord Mayor, who was accompanied by the Lady Mayoress, in opening the proceedings read a message from the King, who is patron of the association. Messages in support of the appeal were also read from the President, Lord Halifax, and from Lord Wavell, Viceroy and Governor-General of India.

Sir ALFRED BEIT, M.P., represented the Colonial Office in the absence through indisposition of the Colonial Secretary, Col. Oliver Stanley. He spoke of the long and fruitful collaboration and consultation of B.E.L.R.A. with the Colonial Governments, which would need not only to be sustained but extended in the future. Although the various Governments

concerned had not been inactive, it could not be denied that measures for the relief of leprosy are still inadequate, and the Colonial Governments would desire to be associated with the tribute he was paying to the association. The newly passed Colonial Development and Welfare Act would be able to provide some of the required assistance, as in the case of the recent grant to Nigeria, but the Colonial Office hoped they would be able to rely on receiving help from B.E.L.R.A. in the future as in the past. The tours in the Colonies of medical secretaries of the association had been greatly appreciated, and further research work was essential. Last year he had witnessed for himself the leper settlement in Southern Rhodesia, with the remarkable record of 50% of cures as a general average. Equally good work had recently been carried out by Dr. Ernest Muir in the Trinidad Leper Settlement.

Achievements and Aims

Sir BERNARD BOURDILLON, chairman of the Executive Committee, paid a tribute to the three founders of the association—Sir Frank Carter, recently deceased, Sir Leonard Rogers, and the Rev. Frank Oldrieve, the first secretary. He need not go into the history and twenty-one years' work of B.E.L.R.A. because the visitors had been supplied with a pamphlet on the subject by Sir Leonard Rogers. He paid a tribute to the good work of Toc H volunteers inspired by their founder-padre. He considered the time to be overripe for a whole-hearted drive to exterminate leprosy in the British Empire. It was only through the investigations of the last twenty-one years that the immensity of the task had been realized with the discovery that there were probably about two million sufferers from leprosy in our Empire—a far larger number than had been previously suspected. Thirty years ago the only recognized treatment for lepers was what amounted to imprisonment for life; this led to concealment of cases. Now we knew that far the more common neural cases were seldom infective, and therefore did not need segregation, and that if the disease was taken early enough it was susceptible to treatment. For example, when he was acting as Governor of Ceylon fifteen years ago the 600 known lepers were isolated. Soon after, as the result of a visit from the association's medical expert, the new methods of control were introduced into Ceylon, and a survey increased the known numbers to over 3,500. Only the infective cases were isolated, and all received treatment, with the result that from 1941 onwards new cases had declined and a start had been made towards eliminating the disease from the island. Two and a half years ago he had visited, as Governor of Nigeria, two enormous mission leper settlements in Southern Nigeria, whose work had received 100% co-operation from the whole population. He had been so convinced that "here is a magnificent work on absolutely sound lines which must be extended until we gradually cover the whole country" that he got his Director of Medical Services to prepare a scheme for a capital expenditure of £58,000 and an annual expenditure of £40,000 for five years. Col. Stanley at once provided the money from the Colonial Development and Welfare Fund. But this sum would only suffice for the three worst-infected of the 24 Provinces of Nigeria, and one-third of the total lepers. Hence the necessity for the most liberal support of the present appeal of B.E.L.R.A., who wanted in addition to extend their methods to many other colonies. Twenty-one years ago the association raised only £4,000 by their first appeal, but subsequent efforts had enabled them to spend just over £100,000 on actual work in the field. He announced the receipt of a gracious gift from His Majesty. The United African Company had given the splendid sum of one thousand guineas, and Barclay's Bank and John Holt and Co. £500 each.

First-hand Experiences

Dr. E. MUIR spoke of his wartime work at the beautiful island leper settlement of Trinidad. He traced the spread of leprosy in the Western Hemisphere after its discovery. Good progress had been made since Trinidad had modified its stringent Leper Segregation Act to allow early cases of a mild type to be treated in special out-patient clinics, in accordance with B.E.L.R.A. principles. In India and Africa admission of lepers to the modern type of agricultural colonies was now regarded as a privilege; no compulsion was required. Conditions were much more difficult under the compulsory segregation system in Trinidad, but patient work had improved the atmosphere of that settlement. The introduction of improved methods of treatment had done more than anything else to remove the sting of compulsion. Last August an American firm had supplied him with a new synthetic sulphonamide, which had been reported to be effective in tuberculosis, and which had been favourably reported on in the U.S.A.: Carville Leper Settlement. This had given encouraging results in the hands of Muir at Trinidad and had increased the cheerfulness of the patients. With regard to the future he pointed out that B.E.L.R.A., in co-operation with various missionary societies, had been to a large extent responsible for pioneer work, and the demonstration of methods along which leprosy could be dealt with effectively. The arrangement for the Nigerian