ANKYLOSING SPONDYLITIS

REVIEW

BY

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The literature on ankylosing spondylitis during the war years has not brought to light any startling new facts about this condition. Some of the papers have given a description of the syndrome and a series of cases. The authors have drawn attention to the incidence of the disease and the importance of its early recognition and treatment. Other papers have dealt mainly with treatment. There has been one paper on pathology.

The Syndrome

Freund describes his pathological findings in a portion of the spine of a man who had suffered from ankylosing spondylitis but had died as the result of a hypernephroma. In the intervertebral articulations he found all gradations, from fibrous to true bony ankylosis. The intervertebral discs showed replacement of the cartilage and nucleus pulposus by blood vessels and fibrous tissue. On pathological and histological grounds he considers ankylosing spondylitis to be a disease *sui generis*. (It is of interest in this case to learn that the patient was aged 67 and had only had symptoms of spondylitis for six years).

Dunham and Kautz review a series of twenty patients suffering from ankylosing spondylitis. They do not think early sacro-iliac changes to be specific for this disease. They, too, consider it to be a disease *sui generis*, and do not regard any particular form of treatment to be specific. Herrick and Tyson review the disease and suggest that it is frequently not recognized. They draw attention to the frequent involvement of the costo-vertebral joints, and advocate general symptomatic treatment. Buckley discusses the differential diagnosis of spinal arthritis in young subjects. He describes an atypical form of ankylosing spondylitis—coming on later in life in both sexes—in which the sacro-iliac joints may not be involved. He makes the interesting note that fluorine poisoning may cause the syndrome. He advocates symptomatic treatment. Fletcher reviews his series of 68 patients, and does not find the predominance of males which is usually described: in his series there were 36 males and 32 females. Eight of his patients had no "sacral focus." He discusses various forms of treatment. Mennell, who also believes that the disease may easily be missed, advocates early treatment by wide-field x-ray therapy.

Treatment

The papers on treatment deal mostly with x-ray therapy. Thus Hare advocates "x-ray treatment,"

but does not specify what form it should take. Hilton is an advocate of small-field therapy. Of 47 of her patients thus treated, she found that all but two derived benefit. But the criteria of improvement were mostly subjective, as there was no fall in the sedimentation rate to match the symptomatic improvement, and the radiological findings were not reversed. Blair is a strong advocate of x-ray therapy, but he is not satisfied with Gilbert Scott's explanation that this form of treatment acts by "stimulating the endocrines." He suggests that, aetiologically, ankylosing spondylitis is due to a derangement of sulphur metabolism, whereby sulphur is absorbed from the chondroitin sulphuric acid of the articular cartilage of the sacro-iliac joints. He suggests that irradiation mobilizes sulphur by causing the mast cells to give up their sulphur, thus stopping further absorption.

An interesting contribution comes from Mandl. He considers that nothing is known of the aetiology of the condition, but believes there is indication for attempting decalcification. The method he chose was the production of artificial thyrotoxicosis. He did this in two patients by administering thyroxin, and in a third by implanting portions of toxic goitre from a thyrotoxic patient. He claims symptomatic improvement in all three cases, but is careful not to suggest that there is any aetiological connexion between the thyroid gland and ankylosing spondylitis.

In a more recent paper Lyth describes the incidence of ankylosing spondylitis in a locality in China where there is a high fluorine content in the drinking-water. This is of great academic interest, but apparently is not of importance in the aetiology of the condition as it is seen in this country.

A recent contribution is by Buckley. In a very complete review of the aetiology and pathology of ankylosing spondylitis he draws attention to the frequency with which it was met in young soldiers during the war. He discusses the possibility of a spread of infection from the prostate in the manner suggested by Batson in his work on the spread of metastases in prostatic carcinoma. He repeats his opinion that osteoporosis is the first recognizable radiographic change in ankylosing spondylitis, and he discusses in some detail the biochemistry of the phosphatase which influences bone deposition and absorption; a toxin derived from the prostate may modify this. This toxin may possibly be bacterial; it may on the other hand be derived from the prostate at a time of its greatest metabolic activity. He

compares ankylosing spondylitis with rheumatoid arthritis, and suggests that the former condition is due not to an arthritis but to an extension of bone through articular cartilage—a “toxic osteopathy.” The influence of the sex glands on bone formation is discussed. Although no concrete relationship has been established between endocrine disturbance and ankylosing spondylitis, either from the aetiological or therapeutic standpoints, work on this is continuing. Assuming it to be an osteopathy unconnected with rheumatoid arthritis, the author outlines his concept of the sequence of changes in the condition. He reviews the symptomatology.

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BOOK REVIEW

N.A.P.T.: Handbook of Tuberculosis Activities. Edited by Harley Williams, M.D. 12th Edition revised and enlarged, with Commonwealth and Empire Supplement. Published by The National Association for the Prevention of Tuberculosis, 1946. Pp. 276. Price 7s. 6d. London.

This is a valuable work of reference, comprising detailed information about all hospitals, dispensaries, clinics, and sanatoria for tuberculosis throughout Great Britain, the Dominions, and the Colonies. It also includes information about

the organizations interested in tuberculosis, and about the veterinary services and rehabilitation offices. It thus brings together a mass of information not readily accessible elsewhere. To those interested in the study of rheumatic diseases, the book's chief value lies in the fact that a list of orthopaedic hospitals and clinics is included. This list, although not complete, will be found useful.

EDITORIAL NOTE

The Editors regret the delay in publication, which is due to causes over which they have no control—shortage of labour in the printing works, and difficulty in obtaining the necessary supplies of paper. It is hoped to bring out the succeeding numbers more quickly, and to catch up with the nominal dates of publication. Subscribers may rest assured that they will receive their copies in due course. It is proposed to make the next issue (June, 1946) a special one dealing with the history of the 1939–45 war. Several important papers are already in hand, and anyone wishing to send in articles should communicate with the Editors without delay.

The Editors would like to take this opportunity to urge those working on the many problems of the

rheumatic diseases to communicate the results of their research in the form of original articles for publication in this Journal. The group of diseases summarized under the vague title of rheumatism is full of unsolved problems. Many attempts to find the solutions must in the nature of things be only tentative. Although a strict standard of acceptance of articles must be maintained in a specialist journal such as this, the Editors, nevertheless, hope that medical men will not hesitate to submit articles for consideration, even though their conclusions are negative.

It is hoped shortly, with the help of the British Medical Journal abstracting service, now in process of organization, to begin publishing abstracts of articles from the world's medical literature.