CHAPTER 24

CHRONIC RHEUMATIC DISEASES

MEDICAL officers conducting sick parades have remarked that the war was one of backs, heads and stomachs. This has its parallel in civil life. The rheumatic diseases have been, and still are, stealthy robbers of man-hours in industry, and before the 1939-1945 war were estimated to cause one-sixth of the total invalidity of Britain. In the armed Services acute varieties of articular rheumatism were uncommon; likewise certain other forms such as rheumatoid arthritis and degenerative arthritis. Nevertheless other members of the vague categories of chronic rheumatic disorders had a high nuisance value, especially among troops under training, and large numbers of men were started on the way that leads to successive medical boards, with the inevitable end result of discharge. No useful statistics can be given owing to the wide disparity of diagnostic labels, with their frequent lack of a sure pathological basis. The differing systems of classification used by the services, and unhelpful methods of consolidating figures relating to diseases affecting bones, joints and connective tissues make statistics of little value. Yet every sick parade, particularly of troops resting or under training, or those employed in base areas, had its quota of men complaining of discomfort in the trunk or the limbs; every medical board encountered many others, and every medical unit holding patients had numbers of men to deal with for rheumatic disorders.

In this vague generic term are included the infective and post-infective groups of arthritis, or more accurately as a rule peri-arthritis, degenerative and post-traumatic affections of joints, and non-articular rheumatism (fibrositis and myositis so-called). In addition there were special conditions of varied aetiology, which include the sciaticas and lesions of the intervertebral discs. Of these the most vague and least serious types caused in the aggregate by far the greatest inroads into manpower.

ARTHRITIS AND PERI-ARTHRITIS OF INFECTIVE ORIGIN

The articular complications of some infective diseases are well known. In the section on bacillary dysentery such sequels are described; there are sound reasons for attributing these to infection, and in some cases at least, to a still active infection. Painful areas, apparently in the region of muscular or fascial tissues, could occasionally be demonstrated during convalescence, and firm tender nodules could sometimes be felt. In other infectious diseases there was some presumptive evidence of a causal relation between infection and similar lesions, but the grounds were less definite. A few instances were seen of febrile illness of undetermined nature associated with pain, heat and swelling of one or more joints. One such series was observed in Libya. Several men in one battalion were attacked within a short period, and were unable to carry out military duties for a time; the condition tended to become subacute, though complete resolu-

tion took place. In 1942 there was an outbreak of peri-articular rheumatism among servicemen and women in South Queensland. In one month twenty-five patients so affected were admitted to one hospital alone. The cause was assumed to be of infective nature. The so-called Reiter's syndrome exemplifies a similar connection with infection.

Though not directly related to infection, it is convenient here to mention the subject of post-inoculation phenomena in relation to rheumatic disturbances. Michael Kelly has reviewed the literature on post-injection neuritis and has presented some presumptive evidence of a connection between the immediate reactive effects of inoculations and the possible sequelae. In the absence of proof of any causal relationship between inoculation reactions and rheumatic affections of connective tissues the question cannot be further pursued here. The importance of protecting an army against serious infectious diseases must come first, though it may be agreed that it is desirable to produce reactions as little violent as possible within the limits of adequate prophylaxis.

POST-TRAUMATIC AFFECTIONS OF JOINTS AND RELATED STRUCTURES

These more often were of a surgical nature, but degenerative changes sometimes began after injury, depending on factors such as local blood supply or age. In general the effect of trauma was often of importance in many of the chronic rheumatic conditions. It can better be dealt with under the heading of muscular and connective tissues. Degenerative changes in or about a joint were of importance in the aging groups. Osteoarthritis, and in particular spondylitis, was seen in some of the older men, either as a spontaneous or accidentally recognised lesion, or in relation to trauma.

In the absence of accurate figures, no estimate can be given of the frequency of ankylosing spondylitis in the Services. It seems safe to assert that as time goes on it will be found to be less uncommon than was thought. Too often spondylitis is thought of in terms of a radiograph with more or less spectacular osteophytes, which may not be causing any trouble, whereas *spondylitis ankylopoietica,* a disease *sui generis,* may easily be overlooked. Medical officers occasionally saw men of the second, third or fourth decades, with backache, some appearance of exploiting an exaggerated complaint, and discomfort in the chest or pelvic girdle. In the early stages, before the clinical and radiological pictures are clearly established it would be easy to do such men injustice.

FIBROSITIS AND MYOSITIS

Some writers question the independent existence of "fibrositis" or "myositis" as a rheumatic lesion, but it seems justifiable to classify it as distinct from the articular and peri-articular types of rheumatism. It is perhaps wise to point out that the use of such terms as "fibrositis" is made with the reservation that it is understood that the tissues affected are not necessarily fibrous tissue. Copeman and others have shown that con-

nective tissue may herniate through fascia, forming nodules, chiefly composed of fat and areolar tissue. These herniations are often intimately related to nerve fibrils, and there are good grounds for believing that they may give rise to irritation and discomfort. Of course the demonstration of nodules alone does not prove the presence of an active rheumatic lesion.

Of the possible causes of soreness and pain in deep muscular or connective tissues, for instance in the common site of the paraspinal regions, we may consider infection, injury and cold. Infection has already been mentioned. Injury does not necessarily mean one sudden or severe traumatic act; it may be repeated, even though not actually severe. During the retreat from Greece and Crete many instances were seen of men, particularly walking wounded, who suffered from pain and soreness in the limbs and back. The muscles and related structures were tender, but after rest, and in spite of an undoubted related anxiety, they made a good recovery. Men subjected to fatigue, especially in very cold weather, as during the winter in Libya or Syria or Greece were particularly prone to such troubles. Rapid changes of temperature together with exposure were conditions most likely to be found in front line service.

PAINFUL BACK

It will now be best to consider the subject from a regional point of view, and discuss the causes of painful back so common in the Services. In the Middle East large numbers of these conditions were seen. Many of them were in the men rising towards the higher age limit and after a few months training in Palestine numbers of these were already in hospital. Often they had drifted from hospital to convalescent depot thence to base depots and back to inactive units as "B" class soldiers, only to start the round once more. Eventually some could not be further usefully employed and were returned to Australia. All through the war this was repeated on different fronts. Such patients' medical dossiers usually bore such diagnosis as "fibrositis", "myositis", "spondylitis", "lumbago", or "sciatica", or in a more agnostic mood, simply "low back pain". There is no doubt that these could be correctly regarded in most instances as psychosomatic states, with anxiety projected along the line of frequently produced symptoms. An interesting example of this psychogenic factor was observed in the 2/6th Australian General Hospital in 1942 just before the battle of El Alamein. Columns of troops of the 9th Division A.I.F. marched past the hospital on their way to the Sinai Desert and hence to the front. The effect of seeing these well trained and disciplined men was striking on some of the patients with backaches, who sought discharge from hospital and improved sufficiently to take some part in the events so inspiringly foreshadowed.

Later in the war this problem was still so troublesome, especially to young and comparatively inexperienced medical officers, that Technical Instruction, No. 32, was promulgated as a help in diagnosis and treatment of low back pain. In the patient's history the most important features

were the nature and duration of the pain, any relation to injury, any radiation to other parts, and the effect of rest or exercise. Obviously a check of the general physical condition was necessary. During complete physical examination opportunity could be taken to observe freedom or restriction of movement, posture, symmetry, evidence of wasting or muscular spasm, or deformity. Movements of extension and flexion were tested, any tender spots noted, particularly with regard to consistency of complaints. If there was no evidence of lesion the soldier could be reassured, and not sent to hospital. X-ray examination was ordered if thought advisable, and interpreted with fairness and caution. The medical officer was warned that mere postural conditions did not contraindicate work, but spondylolisthesis, bone injury such as compression fracture, and bone disease such as tuberculosis should not be forgotten. Examination should distinguish between affections of joints, muscles and ligaments, and nerves.

Captain D. Stuckey in a review of backache in soldiers laid stress on a thorough examination, and found it was advisable to measure the legs carefully. He found that most of the postural syndromes were associated with a difference in length of over ¼ inch, and that adjustment of boots was often advisable. The assessment of psychoneurotic factors was an important part of all initial consultations for pain in the back, but it was also essential to avoid bias and be alert to recognise the signs of organic disease, particularly important conditions like ankylosing spondylitis, or lesions of the sacro-iliac synchondrosis, or of the intervertebral discs. Treatment was largely concerned with the relief of symptoms precluding activity. It was found that admission to hospital, though often unavoidable, too often confirmed the condition. In the Australian forces there was never justification for the establishment of special centres where physiotherapeutic methods could accelerate recovery. At the same time, as Copeman has pointed out, there are uncomfortable conditions of the back and limbs which can be relieved to the point of permitting activity, and even if elaborate equipment is unavailable, extemporisation can supply most of what is needed. Most holding units could apply such measures, which were often effective, though it must be admitted that many patients with backaches were not keen soldiers nor desirous of rejoining their units, but anxious and readily confirmed in the easier, though more miserable, path of chronic ailment. Medical boards were faced with the problem of disposal of many of these; there often came a time when a man was found to be of no further value for active work. For some of these at least the cure lay in return to civil life. Hysteroid signs and symptoms were not very uncommon. Over-emphasis and exaggeration of symptoms were common. Peculiar postures were often seen, and hysterical fixation of the spine was not very rare. Occasionally remarkable degrees of kyphosis were seen, with a strange tortoise-like out-thrusting of the head. True muscle spasm was uncommon, even in these patients, who attracted unjustified sympathy, and thereby confirmed fixations in others.

Local injection of anaesthetic agents was often found valuable, both from the diagnostic and therapeutic points of view; combined with a

degree of rest, deep massage, heat and exercise it could initiate improvement. This method was of value for the treatment of painful foci, such as nodules. A question of some importance was how far these chronic rheumatic lesions should be handled in orthopaedic and other special clinics or hospitals. In Australia a certain amount of centralisation took place, though not to the degree practised in England and America, where of course the numbers involved were so much greater. Some physicians felt that in view of the importance of psychosomatic aspects of some chronic rheumatic states, patients needing hospital treatment should in the first instance be under non-surgical surveillance. Certainly one difficulty in the treatment of these conditions in orthopaedic hospitals or wards, was that inevitable contacts with patients suffering from long term disabilities of bones or joints produced an environment unfavourable to quick recovery. It will be seen that there is a psychological problem very similar to that of the "ulcer-type" patients, who must be investigated if doubt exists, but who are readily confirmed in an invalidity whose basis is only in part, and perhaps in small part, organic. For the solution of the problems raised by the subjects of chronic rheumatism, a close liaison between hospitals and convalescent depots was necessary. Greater care and thought in attaching a diagnostic label to men reporting with a complaint of pain or stiffness in the trunk or limbs were and still are even more necessary. A diagnosis of articular disease may be made when a strain of related muscles may be the only lesion; or the dragnet term "fibrositis" may be used without any justification. It is very hard to retrace the steps of such diagnosis without pathological basis. Finally, without presenting statistical evidence of the relative frequency of the various physical and psychological factors of causal importance in "rheumatic" disorders, these states caused a great amount of wastage in the Services during the war, just as they did in the industrial world before the war, and still do after it.

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