MANIPULATIVE TREATMENT OF SUBACUTE AND CHRONIC FIBROSITIS

BY

T. STACEY WILSON, M.D., F.R.C.P.

CONSULTING PHYSICIAN, BIRMINGHAM GENERAL HOSPITAL

Although the symptomatology of fibrositis has of late been very fully dealt with in medical literature, general recognition does not seem to have been given to the possibility of effective treatment of its painful subacute and chronic stages by forcible breaking down of the nodules and cords to which much of the pain that characterizes the condition is due. In this essay the term "nodule" will also be understood to include the fibrositic cords which are so characteristic of this condition.

My experience of recent years has shown that in many patients who suffer from chronic rheumatic pain, even when associated with rheumatoid arthritis, the pain is due to the presence of fibrositic nodules, and the destruction of the latter by forcible manipulative treatment will in a few minutes set the patients free from pain on movement which may have troubled them for years. The painfulness of this treatment might be expected to deter patients from undergoing it, but the relief given by the destruction of cords and nodules is so immediate and so great that they are not only willing but anxious for a continuance of the treatment.

Clinical Features of Fibrositic Nodules

Certain clinical features of these nodules are made clear by the fact that they can be completely and rapidly destroyed by the right kind of manipulative treatment, and these features may be summarized as follows.

1. Fibrositic nodules are not due to a deposit of inflammatory tissue, but to the agglutination of normal fibres of either fibrous or muscular tissue by a minimal amount of inflammatory material due to some pre-existent inflammation. When a nodule is forcibly broken down it can in the course of a few minutes be made to disappear entirely in a manner which would not be possible if the bulk of the nodule were due to inflammatory deposit and not to normal tissue under abnormal conditions.

2. Fibrositic nodules contain a large amount of toxin, presumably streptococcal in type, which is set free in the circulation when the nodule is forcibly broken down. Therefore care must be taken as to the number of nodules broken down at any one sitting, otherwise a definite reaction may result, as is the case with vaccine treatment. A reaction due to this cause may occur in from twenty-four to forty-eight hours, and may last two days. It may be characterized by considerable malaise, and may even be accompanied by a rise in temperature to 100° F. or more. Pain, apart from any constitutional reaction, is a frequent result of the treatment, and under certain conditions its onset may be delayed for as much as forty-eight hours.

3. The breaking down of fibrositic nodules must therefore be regarded as a form of vaccine treatment, and its adoption must be regulated by the same principles as those which govern the injection of a vaccine. The number of nodules broken down at any one sitting must be limited so as not to produce a reaction. The frequency of the treatment must allow time for the cessation of the negative phase and for the establishment of the positive one. An interval of at least five days should therefore be allowed, and if possible seven days; neither more nor less. If advantage be thus taken of the positive phase more can be done at a sitting than would be desirable if a longer or a shorter interval were adopted.

4. The fibrositic nodules contain living micro-organisms, presumably streptococci, and not simply toxin. This is shown by the clinical observation that nodules which judging by their hardness and by the history of the case must have been in existence for many months or years are, when broken down, quite as liable to give rise to a reaction as nodules of more recent origin. It does not seem possible that such an amount of toxin could have remained stored up in a fibrous nodule for, say, a couple of years, and therefore the presence of living organisms in the nodules must be presumed.

5. The results of this manipulative treatment also throw some light upon the cause of the pain which so often occurs when fibrocystic nodules are present.

The treatment we are speaking of will in a few minutes relieve pain that has for many years accompanied certain movements of a joint, and pressure upon some painful spot has been the means of curing. Pain with such characteristics could not be due to the irritation of nervous tissues. Moreover, localized tenderness which can be made to disappear within a few minutes as the result of force applied to the tender spot cannot be of nervous origin. The results of this manipulative treatment, therefore, seem to prove that the pain to which fibrositic nodules give rise is due to strained muscular fibres, and not to irritation of sensory nerves.

The explanation of this pain is probably as follows. In the first place the nodule causes pain by the abnormal strain placed on the muscular fibres with which the nodule interferes. This irritation calls up protective fixation of the adjacent part of the muscle, and the widespread pain is due to this fixed portion of the muscle being stretched when certain movements are attempted. The fixation will be attained by means of static muscular activity. As soon as the nodule is broken up the need for this protective fixation ceases, and the muscle regains its normal mobility.

Relation of Fibrositic Thickenings to Rheumatoid Arthritis

If fibrositic cords and nodules are looked for in cases of chronic arthritis such as twenty years ago would have been included under the general term rheumatoid arthritis, it will often be found that they are very numerous, and that much of the pain which characterizes this type of ailment can be relieved by the destruction of these thickenings. In such cases it is often found that *pari passu* with the removal of the fibrositic nodules the general condition of the affected joints improves. On the other hand, a too vigorous adoption of this treatment appears in certain cases to cause a temporary deterioration in some of the joints—for example, in those of the hand—owing presumably to the liberation of an excess of toxin into the circulation. When the weight of the patient is carefully watched and the treatment regulated accordingly this deterioration is not likely to occur.

These clinical observations seem to suggest the possibility that the absorption of streptococcal toxin from these fibrositic nodules may play an important part in the causation of some of the conditions now called septic arthritis, osteo-arthritis, and rheumatoid arthritis.

Type of Manipulation Needed

FORCIBLY BREAKING UP A NODULE OR CORD

When the character of a cord or nodule is recognized it is clear that the object of manipulative treatment must be to burst the nodule by a sudden and very forcible pressure of the finger-tips, which is calculated to tear asunder the agglutinated fibres of which it consists. This can be done by combining a very rapid to-and-fro rolling movement with the pressure. This treatment can only be adopted effectively in situations where the cord

or nodule can be compressed against subjacent bone, and also where no structures occur, such as nerves or tendon sheaths, that might be damaged by the force used.

In this connexion it is of interest to note that fibrositic cords and nodules which give rise to pain are very often associated with the origin of muscles from bone, and are, therefore, in situations where this forcible treatment is capable of adoption. In the case of the erector spinae and associated muscles fibrositic cords lie in the sulcus between the vertebral spines and the angles of the ribs, and their compression against the laminae of the vertebrae is possible and safe.

The fact that fibrositic nodules are often associated with the point of origin of muscles from bone, and more especially from flat bones, must always be borne in mind when dealing with pain which is thought to be of a general rheumatic character. When there is pain in the hip a careful search along the line of origin of the gluteus maximus from the ilium just below its crest will often demonstrate the presence of tender spots, and the careful examination of a tender spot will make evident a small hard nodule of the size and shape of a grain of wheat, or smaller. There may be many such nodules along the edge of the gluteus maximus. Sudden forcible pressure of the kind just described will usually suffice to break up a nodule and cause its disappearance. After three or four small nodules have been destroyed the localized areas of tenderness will no longer be present, and the patient will find a definite lessening of the pain on movement. In the same way nodules may be found along the line where the infraspinatus muscle arises from the scapula, and their destruction will give the patient relief from pain.

Small nodules of this type may be found at the point of origin from bone of other muscles—for example, the adductor magnus, where it rises from the pubic bone, or the origin of the deltoid from clavicle or scapula. In the case of the deltoid, however, care must be used in the application of force on account of the risk of damaging tendon sheaths or nerves.

FIBROSITIC NODULES IN THE CENTRE OF A MUSCLE

Occasionally a large nodule may be found in the central portion of a muscle instead of at its origin or insertion. For instance, I have known a fibrositic nodule the size of a date stone occur in the vastus externus in the middle of the thigh and make the patient almost unable to walk. In a case of this kind considerable force is not desirable for fear of damaging subjacent nerves or veins; also it is likely to prove ineffective since there is no hard surface against which the nodule can be compressed. Such a nodule can, however, be broken up by the rolling movement already described, apart from the use of any great force. The rolling pressure must be applied at either end of the date-stone-shaped nodule where the free fibres enter it. With a little patience the nodule can gradually be broken down by rolling the free fibres against one another at the point where they become agglutinated, and thus separating them from the mass and lessening its size. It may take twenty or thirty minutes' work, first at one pole and then at the other, to break down such a nodule, but where it is done the result may be most dramatic, and a patient who hobbled into one's consulting room hardly able to walk owing to the pain in his leg may run round the room exclaiming delightedly "Why, I am cured, I am cured!"—as a patient of mine once did.

When fibrositic nodules or cords occur in the intercostal spaces this gentle type of forcible breaking down is desirable. As a rule it is adequate; also the nodules in this situation are extremely tender, and most patients cannot be asked to bear the pain which very forcible pressure would cause. These nodules may escape recognition unless they are definitely searched for, because the pain to which

they give rise is usually felt as a referred pain over the abdomen and is therefore liable to be mistaken for a visceral pain. This subject will be discussed later when pain as a symptom of fibrositis is dealt with.

MECHANICAL TREATMENT IN VERY CHRONIC CASES

In cases where the thickenings have not been in existence more than a few months pressure by the finger-tips is adequate to destroy them. When, however, they have been in existence for several years they may be so hard that pressure with the finger-tips is not the most desirable way of dealing with them. This is especially true of the hard cords in connexion with the posterior spinal muscles, which can often be found lying on the vertebral laminae in the sulcus between the vertebral spines and the angles of the ribs. It is also true of the hard cords that may be felt on the iliac crest, more especially in the neighbourhood of the posterior superior spine and sometimes on the outer or the internal aspect of the anterior superior spine. Occasionally, also, very hard and very tender cords may be felt on the posterior part of the upper border of the scapula, at the medial angle, particularly on its inner aspect, and also sometimes in relation to the upper part of the posterior border of the scapula.

In all these situations the cords when very hard can be broken up with less pain to the patient by means of a sharp blow with a light wooden mallet. The localization of the blow to the cord to be dealt with can be ensured by using a properly shaped and padded piece of wood. The technique is as follows. In the first place the mallet must be of the right type. It must be made of light wood such as deal, and have a head measuring two and a half or three inches each way. The handle must be so thick that the point of balance of the mallet is where the handle joins the head. Such a balance makes it possible to give a sharp light blow and not a heavy one. To limit the force to the cord which has to be broken up, a piece of deal is used a quarter of an inch thick, three-quarters of an inch wide, and of sufficient length for a stout elastic band to be stretched round it to act as a pad. The lower end of the piece of wood must have a slight longitudinal groove, deep enough to make it hold the cord when it is placed over one, but not so deep that it will protect a cord of under an eighth of an inch in diameter from the force of the blow. The cord is now carefully held between the first and second fingers of the left hand. With the right hand the piece of wood is slipped between the two fingers so that it rests accurately on the cord, and the groove will ensure that the cord does not slip from under it. The mallet is then picked up and a sharp blow delivered on the top of the piece of wood.

It is very important that the blow should be adequate to break up the cord, but not so strong as to bruise the periosteum. The only way to learn how strong the blow should be is for the operator to experiment upon himself with the mallet and the piece of wood; and the crest of his own ilium is a suitable situation. A very forcible blow will not only be definitely painful at the time, but may leave a bruise which will be tender afterwards. Such an amount of force is not necessary and is undesirable.

Although this method of dealing with fibrositic thickenings may seem somewhat rough, it is in practice preferable to what seems a gentler method when fibrositic cords are very hard. When both methods have been tried in a case of long-standing pain the patient (even though a lady) will ask that the mallet be used rather than the finger-tips.

An Important Practical Point

When a fibrositic cord has been successfully broken down it will be found that the sensation of a smooth cord slipping to and fro under the finger-tip can no

longer be felt, and that instead there will be a sensation of grating where the cord used to be, or, if the cord was a thick one, the sensation of grating may be felt to be due to three or more small hard cords slipping over one another as the finger is moved to and fro. This is evidence that the complete destruction of the cord may be attained in ten minutes or less by continuing the same type of movement of the finger-tips, but with only an amount of force which will not be definitely painful for the patient. The fact that this sensation of grating under the finger-tip usually precedes the final disappearance of a fibrositic cord shows that such a cord is an agglutination of separable fibres.

If a fibrositic cord is two or three inches long—this may well be the case where the erector spinae and its associated muscles are concerned—it is very satisfactory to be able to feel a definite gap in the cord of more than half an inch in length after the forcible rolling pressure already described has been applied. Sometimes, however, much force may be necessary before this result is attained by pressure with the finger-tips.

In one such case the patient, aged 69, had never been free from pain in her back and shoulders for six or seven years; this was the more trying as she was living in an almshouse and had to look after herself. It is always advisable in cases in which there are many fibrositic thickenings to begin with a situation like the shoulders or the hips, where definite relief of pain can be given by the use of a moderate amount of force and the infliction of no very severe pain upon the patient. The patient then comes to realize the efficacy of the treatment, and is prepared to suffer the more severe pain which the breaking up of hard nodules may occasion. In the present case, after five or six treatments, the relief was so great that the patient was willing that I should do everything that was necessary. There was an extremely hard cord on either side of the spine in the lower dorsal region more than three inches long, and moderate force did not suffice to break it up. It was not until I knelt upon the couch and exerted all the force that I could bring to bear upon my finger-tips that I succeeded in making a definite gap in the cord. I did not succeed in completely destroying both the lateral cords until I had used this extreme amount of force on three or four occasions. The relief from pain which each treatment gave was, however, most gratifying to the patient. Twelve weekly treatments were required before she was able to state that she was free from all pain in the back and shoulders for the first time for nearly seven years. As is usual in such cases, there was no return of the pain after the destruction of the fibrositic cords associated with the scapulae and the spine, and after the lapse of more than a year she has remained quite free from any fibrositic pain.

This case was treated before I had thought of breaking up cords by the blow of a mallet, and doubtless the treatment would have been less painful for the patient and less prolonged if I had adopted this method.

Pain as a Symptom of Fibrositis

There are some very interesting features in connexion with the pain which is due to nodular fibrositis, and which ceases when the nodules are broken up. Where there are fibrositic cords on the upper border of the scapula at or near the medial angle the patient often suffers from pain that is spoken of as a headache involving the back of the neck and the occipital region on one or both sides. This is especially true of cords which occur so much on the inner aspect of the medial angle that the finger-tips cannot reach them unless the patient forces the scapula away from the ribs by lying on that shoulder. In this attitude the finger-tips can be got round to the anterior aspect of this part of the scapula, and the cords felt and broken up. Cords in this situation may be associated with neuralgic pains in the side of the neck below the ear, along the upper jaw, or even higher up under the eye: I have met a case in which the pain caused by the treatment

was felt under the eye as well as at the site of the cord at the medial angle of the scapula.

The pain occasioned on movement by fibrositic cords and nodules in other parts of the scapula is such as might be expected to occur considering their situation and the muscles involved. The same is true of fibrositic cords and nodules in the neighbourhood of the iliac bones and those involving the erector spinae.

Some very unexpected and interesting symptoms are observed in the case of thickenings in the intercostal spaces. For instance, nodules in the sixth left intercostal space may give rise to pain in the situation described as "under the heart" which may be mistaken for cardiac pain. Fibrositis in the right axilla in the fifth to the seventh interspaces may cause epigastric pain simulating that due to duodenal ulcer owing to the irregular times at which the attacks come on, and for a similar reason fibrositic nodules in the interspaces from the eighth to the eleventh may occasion attacks of pain felt over the abdomen which may be mistaken both by physician and by patient for pain arising in the colon or in the appendix.

There is a most unexpected difference between the symptoms characterizing fibrositic nodules found in the intercostal spaces and those found in such situations as the shoulder, hips, or back. In these last-named situations the pain is associated with movement to a very large extent, whereas in the intercostal muscles and fibrous tissue the determining factor for the occurrence of pain is predominantly the excitability of the nervous mechanism involved in its production.

Relation between Symptoms and Nervous Excitability

Under certain conditions the occurrence of some particular symptom may be determined by the excitability of the nervous mechanism instead of by circumstances connected with the pathological condition to which the symptom is due. This law relating to the causation of symptoms does not seem to have as much prominence in medical literature as it deserves, and two illustrations of it which bear upon the present subject may therefore be given. They are taken from my book *Tonic Hardening of the Colon*,* in which I refer to the fact that abnormal muscular activity in the colon may so increase the excitability of the central nervous system as to make the time of occurrence of symptoms of various kinds dependent upon the periods when functional activity of the colon takes place. The time of greatest muscular activity of the colon seems to be between the hours of midnight and 4 a.m., and one sometimes meets cases in which the occurrence of symptoms (the latter may be wholly unconnected with the colon) is almost or entirely limited to these hours of colon activity.

In my book I record the case of a woman, aged 55, who for two years had suffered occasionally from attacks suggestive of Ménière's symptom complex. Although a certain amount of vertigo was elicited during the day by sudden movements of the head, the severe attacks only occurred between one and two o'clock in the morning. An attack was often ushered in by "noises in the head," and would be followed by tremor severe enough to awaken her husband by the shaking of the bed. The attack was characterized by coldness, by extreme faintness, and often by unconsciousness lasting for some minutes. Towards the end vomiting often occurred, and after she had recovered consciousness there would be considerable breathlessness. On examination the colon was found to be abnormally hard and tender. The case was clearly one of "static" hardening of the colon, although there were no abdominal symptoms except a little gastric fullness. She was cured in a few weeks by the ordinary

* *Tonic Hardening of the Colon*, pp. 31, 147, and 148. Oxford Medical Publications.

treatment for this condition—namely, salol 10 grains, tinct. hyoscyam. 20 minims, thrice daily, together with the usual limitation of diet so far as vegetables were concerned. Another interesting point about the case was that after recovery the patient's labyrinthine symptoms all subsided, and there was no need for any aural treatment.

In the following case the time of occurrence of neuralgic pain in the right forearm and hand of median and ulnar nerve distribution was determined by the excitability of the sensory mechanism when irritated by abnormal muscular activity in the colon. The patient had no neuralgic pain by day, but for some weeks past had been awakened each night soon after midnight by severe neuralgia, and he would "walk up and down the bedroom in agony" until the pain gradually subsided and he was able to go to sleep again. This man had "static" hardening of the colon, and he was immediately cured of his neuralgia by the same colon treatment that had cured him twelve months before when suffering from severe mental depression, with suicidal tendencies, of colon origin. The remedy used was tinct. hyoscyam. 20 minims, liq. hydrarg. perchlor. 15 minims, tinct. ferri perchlor. 15 minims, with some glycerin and chloroform water taken when the stomach was empty a quarter of an hour before meal times, thrice daily. On the second night after commencing this medicine (which was taken in conjunction with the usual dietetic limitations) he was free from his nocturnal neuralgia, and had no return of it.

In both these cases it must have been the over-excitability of the sensory mechanism in the small hours of the morning which made possible the occurrence of some symptom only at that time out of the twenty-four hours. In the case of the pain due to intercostal fibrositis, the time of occurrence appears to be in some measure determined by over-sensitiveness of some reflex centre which is situated in the spinal cord and not the brain.

Fibrositic Pain Simulating that Due to Duodenal Ulcer

The best way to introduce this subject to those who read this communication will be to record the case which first brought it to my notice in December, 1934. The symptom is, I believe, a very important one clinically, and but few, if any, observations appear to have been made upon it.

A man, aged 47, had been seen by me several times during the last two years, in consultation with his doctor, for severe abdominal pain due to duodenal ulcer, but in which "static" hardening of the colon at times played a considerable part. After being comparatively free from pain for a time he began having very severe and intractable attacks of his "old pain" in the autumn of 1934. He was therefore admitted to the Birmingham General Hospital to see if some surgical procedure could give relief. However, after a most thorough and complete study of the abdominal condition, it was decided that no operative procedure was desirable.

As the pain was not amenable to any ordinary treatment it seemed possible that it might be due to fibrositis, in spite of the fact that the time of its occurrence appeared to be related to times of digestive activity rather than to movement. On examination it was found that there were very tender fibrositic nodules in the right axilla situated in the fourth, fifth, and sixth interspaces, and that forcible treatment of these occasioned pain over the right side of the epigastrium. At first the treatment was tentative. At the third visit, however, very considerable force was used, and as a result the patient had an extremely severe attack of epigastric pain commencing at 6 o'clock on the evening of the second day, and he suffered so much that at 10 p.m. he tried the effect of a large poultice to the right side of the epigastrium. The next day he had a slight attack of pain in the evening, but during the four following days he was more free from pain than he had been for many weeks.

At the next visit manipulation was confined to the sixth intercostal space high up in the axilla, and the patient was asked to mark out with an aniline pencil the area over which any subsequent pain occurred. He had a moderately severe attack of pain twenty-four hours after the treatment, and the area he had enclosed with a blue line was exactly the

skin area related to the sixth intercostal nerve. After only six or seven treatments he was free from the epigastric pain from which he had been suffering severely for several months.

Fibrositic Pain Simulating Cardiac Pain

It has already been stated that fibrositic nodules in the sixth left intercostal space may give rise to severe pain "under the heart," which is sometimes definitely associated with overtaxed cardiac activity. Moreover, the fact that in such a case the pain may prevent the patient from sleeping on the left side is almost certain to be regarded as a cardiac symptom and not a fibrositic one.

Fibrositic Pain Simulating Colic or Appendix Pain

When fibrositic nodules occur in the lower intercostal spaces from the eighth to the eleventh, although they may give rise to pain on movement in that situation, they are very liable to cause only "referred pain" over the "skin area" of the abdomen which is in relation to the intercostal nerve concerned. As pain of visceral origin also obeys the same law and is felt over the skin area which is in relation to the segment of the cord receiving the irritating nervous impulse from the bowel, a pain of fibrositic origin may be quite indistinguishable from one of visceral origin. The similarity is increased by the fact that the time of occurrence of fibrositic pain appears to be largely determined by any increase in the excitability of the segment of the spinal cord concerned, owing to the reception by it of disturbing impulses from the bowel.

Clinically, fibrositic pains felt over the abdomen do occur at times of activity of the bowel just as is the case with pain of visceral origin. There is therefore good reason for the fact that until quite recently fibrositic nodules in the lower intercostal spaces have not been recognized as a possible cause for what appears to be visceral pain. For instance, fibrositic nodules in the tenth or the eleventh right interspaces will give rise to occasional attacks of severe pain in the two situations that are considered characteristic of appendix pain—namely, a little to the right of and below the umbilicus, or an area two inches or so in diameter in the right iliac fossa. In such cases the differential diagnosis must sometimes depend upon the presence of tender nodules in the intercostal spaces and the fact that pressure upon them will cause either an immediate reference of pain to the abdomen or an attack of pain, the onset of which may be delayed for some hours or even for a day or two.

Something may well be said here as to a simple clinical method whereby referred pains can be distinguished from pain of direct visceral origin. This method depends upon the fact that the occurrence of referred pain in the skin area which is associated with one of the intercostal nerves is almost invariably accompanied by tenderness of the subcutaneous branches of the nerve concerned. When, therefore, the branches of the subcutaneous nerves are tender on pressure it is evidence that the pain is a referred one and not a visceral one. In the former case hardening of the muscles of the abdominal wall (by making the patient contract them) will greatly increase the pain given by pressure upon the hyperaesthetic nerve trunks, whereas if the tenderness be of direct visceral origin the hardening of the abdominal wall will prevent the pressure of the fingers from reaching the organ concerned and tenderness on pressure will no longer be obtainable. Thus a patient has tenderness over an area of the stomach just above the level of the umbilicus. While gently pressing upon the tender area the patient is told to lift both heels from the bed and thereby to contract the muscles of the anterior abdominal wall. This action will make it impossible to elicit pain on pressure if the stomach for some reason be

unduly tender, but if the pain be a referred one the tenderness on pressure will be greatly intensified. As the stomach is not in relation with intercostal nerves lower than the seventh, referred pain felt in the region of the umbilicus—namely, in an area supplied by the eighth and ninth intercostal nerves—cannot be of gastric origin, and is probably due to the colon. In this way pain after meals may be proved to be due to "static" hardening of the colon and not to gastric disturbance.

A Clinical Problem

A case seen as recently as May 11th, 1935, raises a very interesting point as to the connexion between fibrositis and persistent contraction of the fingers.

A manual worker four years ago had a very severe attack of rheumatism, which confined him to bed for many weeks and prevented him from working for fifteen months. It left him not only with troublesome pain in both shoulders on movement, but also with contraction of the fingers, more especially of the third and fourth, which, while not materially interfering with his daily work, prevented him from bringing the ulnar aspect of the palm within three-quarters of an inch of any flat surface. He gained so much relief from the pain by manipulative treatment of the upper border of the scapula and the supraspinous fossa on the right side that he desired similar treatment to the left shoulder. As the fibrositic cords were very hard owing to the long time they had been in existence, I began the treatment with extremely forcible manipulation. He was so anxious to be free from pain that he at once requested a repetition of the treatment, as the first had not given full relief, and on this occasion he exclaimed that it "has loosened something and the pain has shot down the arm into the third and fourth fingers." After he had dressed I found that the contraction of the fingers of the left hand was completely cured, and no trace of it remained. Moreover, on fully extending his fingers and flexing them, as he could now do with perfect ease and without any pain, there was a very loud and low-toned grating in the joints of the hand as well as one or two bony clicks. In the course of four or five days the condition of the joints had nearly returned to normal, for the grating on movement had ceased and there were only a few clicks.

This was a most extraordinary and unexpected result of the treatment, and perhaps the most remarkable thing was that in spite of four years' deformity of the hand there was no trace of fibrous fixation of the joints, and perfect mobility was restored immediately when the muscular contraction, to which the deformity had clearly been due, suddenly ceased.

The correct solution of this problem is no doubt of clinical importance, for it will throw much light on the question of similar contractures. I state what seems to be the possible solution, in the expectation that someone with more experience than myself will give the correct one. There is the possibility of further experiment in this case, for the man's right hand is still contracted, and I have not yet had an opportunity of trying to cure it also by manipulation of the scapular region.

1. In the first place, what was the nature of the deformity of the hand? The fact that sudden and complete cessation of the contraction resulted from manipulation of the shoulder without anything whatever being done to the hand shows that the contraction must have been entirely due to involuntary muscular action, in spite of its persistence for four years.

2. The muscular contraction may have been of the nature of a protective muscular fixation of the joints, which was originated when the rheumatic attack gave rise to pain on movement. The muscular fixation must have persisted as a habit phenomenon after recovery from the rheumatic attack, as is liable to occur when protective involuntary muscular fixation of a joint is once originated. Lasting fixation of intervertebral joints after some slight strain or injury is a well-known instance of this.

3. The involuntary muscular contraction may, however, have been due to disturbance of some controlling mechanism by a fibrositic nodule, which could irritate one of the cords of the brachial plexus or some sympathetic nervous structure. Such a nodule might have been broken up by direct pressure of the fingers just above the upper margin of the scapula, or it may have been broken up when the scapula was forcibly pressed against the subjacent ribs. These are some of the problems raised by this interesting case.

This whole subject of the symptoms due to fibrositic nodules and their relief by forcible breaking up of the nodules is one of much clinical importance, and will repay fuller study and observation.

A NEW TREATMENT OF FIBROSITIS

BY

G. LAUGHTON SCOTT, B.A., M.R.C.S.

FORMERLY SENIOR PHYSICIAN, LONDON NEUROLOGICAL CLINIC

Fibrositis is the commonest of those chronic conditions which we call rheumatic. Throughout the world its incidence is widespread, and in such a climate as our own it is rare to find the man who lives to old age without some temporary disablement and far from temporary discomfort from this cause. Yet only in the last twenty years has its existence been at all commonly recognized, and even now it is far too readily accepted as an inevitable accompaniment of advancing years.

Pathogenesis

Fibrositis denotes the swelling and proliferation of white fibrous tissue in response to injury and toxic influences of all kinds, with the secondary effects of pressure on arterioles and nerve filaments. In rheumatic cases it is generally recognized that the condition must have its prime origin in some focus of infection, which it is the first principle of sound therapy to treat or to remove. Often the extraction of an offending tooth will cause the local inflammation to subside, but with long-standing cases it is common to meet those which are unbenefited by the most careful elimination of suspected sources of infection. Those who find in the focal theory the complete explanation of rheumatic problems will argue that, when cure does not result in any given case, the focus removed was not the right focus and others must be sought and dealt with. But how frequently in really inveterate cases is the final result disappointing!

The physician who remembers his failures will be able to match from his own experience the case of a young woman under my care some years ago, who made an apparently complete recovery from crippling fibrositis after the removal of all her more than doubtful teeth. Six months afterwards the pain and disability returned in full force, and no efforts to help her were of any avail, nor did the most exhaustive search reveal any further focus. Later treatment at other hands proved equally unprofitable.

Inadequacy of the Focal Theory

So distressing a failure must tend to raise in the physician's mind some doubt of his own methods, and perhaps even the suspicion that the focal theory leaves something unexplained. It did not explain, for instance, a phenomenon observed in this case—namely, that the application of deep massage was always followed by malaise and a slight rise of the evening temperature,