TENSION PAIN: ITS DIAGNOSIS AND MANAGEMENT

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The essential feature of tension pain is the experience of painful, disagreeable or distressing bodily sensations by a patient without organic dysfunction which can account for them. Tension pain is always accompanied by mental disharmony in one form or another.

The concept of tension pain was adumbrated by Halliday in his paper of 1937,¹ and touched on again in his book *Psychosocial Medicine*.² Philip Ellman and his co-workers studied 50 patients with 'fibrositis,' and found 25 with hysterical tendencies, seven with anxiety states and three with depressive states.³ In America Boland and Corr introduced the term 'psychogenic rheumatism,'⁴ and Hench and Boland gave a clinical description of the disorder.⁵ A controlled study of a small series of patients was reported in an earlier paper in the *British Medical Journal*.⁶

Much of the illness now termed tension pain was formerly given the diagnosis 'fibrositis,' a name invented by Sir William Gowers in 1904. He believed, in company with many others, that sciatica was caused by inflammation of the fibrous sheath of the sciatic nerve, and 'muscular rheumatism' to inflammation of the fibrous tissue of muscle. 'We may,' he says, 'conveniently follow the analogy of cellulitis, and call it "fibrositis".'⁷ Many attempts have been made to establish a pathological basis for 'fibrositis,' and none has been successful. In fact, 'fibrositis' is neither a pathological nor a clinical entity; patients so diagnosed may have any one of a number of painful disorders, of which tension pain is one.

In the earlier writings on stress disorders, and in some present-day studies as well, there has been a tendency to formulate the diagnosis in terms of a psychiatric illness to which the physical symptoms are an appendage: for example, 'anxiety state with bodily pain.' This kind of formulation is misleading, since the pain is primary and not secondary, and tension pain is a disorder in its own right.

Tension pain can of course co-exist with other stress disorders, and with organic rheumatic disorders, such as degenerative joint disease.

Tension pain is real. The distress which it causes has been called 'imaginary,' but this is a term of abuse and has no place in a clinical record. No one who has dealt with these patients could believe them to be malingerers. It is true, however, that the disablement which this disorder causes is often masked, since most of the patients are women, and many are housewives who can take a rest when they need one.

Case Series under Review

The case material for this study is a series of 50 patients from the Department of Physical Medicine at University College Hospital. It is a selected group, in that the patients were referred for psychiatric investigation and treatment. A further selective factor is that only those patients with whom I could maintain contact were included in the series; a number who did not attend when they were asked to, or did not reply to letters, were dropped. This question of failure to keep contact with the clinic will be mentioned again below.

The age range of the series is 25 to 74, and the mean age 46. Only four are men, and this is in accord with general experience, that tension pain is more common in women. The period of observation ranged from five months to 24 months, the mean being 15 months.

Method

The patients were first seen in the Department by a physician. The psychiatric examination was carried out in an adjacent room in the same clinic, the patients being told simply that they were to be seen by another doctor who might be able to help in the treatment of their disorder. They were not, in other words, sent off to another department, but seen and treated in the same setting as all the

other patients; by this means, resistance to a psychiatric approach to the illness was kept to a minimum. The patients were all seen more than once, the mean number of interviews being six. In some cases the patient's relatives were seen as well, in order that a more complete picture of the nature of the illness and its background could be built up. It was possible to reach a satisfactory understanding of the psychophysiology of the disorder in most of the patients; in a few the meaning of the pain to the patient and its place in her life adjustment were not clear.

Each patient was given a thorough physical examination and such special investigations as seemed appropriate. The physical condition of these 50 patients may be summarized in the statement that no organic state adequate to account for the discomfort could be found in any of them, though some had joint changes of the osteoarthritis type.

Clinical Characteristics of the Pain Experience

Site

In general, the pain was felt over a wide area and was symmetrical about the body axis. In eight patients the area was so large as to merit the description 'pain all over.' In three patients, the pain was limited to one side only. The most common site was the back, and the next in order of frequency were: neck, head, abdomen, legs, arms, thighs, buttocks, shoulders. Less often there was pain in the chest, hands, feet or face. Pain was felt much more often on the back surface of the body than on the front.

Quality

Many terms were used by the patients to convey the quality of their pain: pricking, heavy, jabbing, toothache, dragging, cold, sore, drawing, cramping, burning, gripping, knives. Some patients said, 'Can't describe it, Doctor.' Many patients complained of more than one type of pain; one (Case 7) spoke of seven different kinds of sensation.

Each patient was given a pain chart (a body outline on quarto paper) and asked to mark on it all the pains they felt; the quality of each pain, in the patient's own words, was then written beside it.

The device of the pain chart we owe to Harold Palmer, and it has proved extremely useful in the study of tension pain. Indeed, the chart in itself, in these patients, is often so characteristic that the diagnosis can be made on that alone. When necessary a fresh chart was marked up at later attendances, and the variation of pain over the course of time could thus be recorded.

Pain chart.

Time Relations

In most patients, the pain tended to be more or less constant throughout the day; in some it grew worse with fatigue. The relationship in time between intensity of pain and degree of stress was, in the majority, close; in some patients, such a relationship could be demonstrated only at certain times. Similarly, the onset of pain followed a disturbing experience in most of the patients studied, though in a few the 'determinants of onset' were not clear.

Case 15. A woman of 45 complained of aching pain in the back, and pain in the abdomen of dragging, stabbing and shooting quality. The pain began when 'we came back to our own house from a flat. It was dreadful! A slum! Neglect! A great strain.' The main source of tension was 'the woman upstairs. She hurts me with comments, sarcasm. I could hit her! It's hard not to. Feel sick and off my food. Such vulgar talk—disgusting! I'm used to living alone. Her husband called me a no-good woman. My husband should have hit him, but didn't. It's me or them. Don't like to give in. Used to be happy, now it's all hate. Can't apologize. She insulted and abused me.' The patient thus revealed a tremendous amount of hate and aggression directed against this person, who was a tenant in the house; her aggressiveness could find no adequate outlet, but was 'bound' in muscular tension and pain. The intensity of the pain bore a direct relation to the domestic 'temperature.'

Symptom Picture

Pain was the sole symptom in only four patients in the series. In the other 46, symptoms such as fatigue, irritability, fitful sleep, bad dreams, and other signs of emotional tension were present as well. For example, one patient described deadness of the leg, discharge, depression and all four of the common stress disorders of menstruation (irregularity, amenorrhoea, period pain, and menorrhagia). One feature which stood out, in this series, was the frequency of depressive states. Twenty-nine of the total gave depression as one of their complaints, or were found on clinical examination to be suffering from a depressive mood. The mean age of those 19 patients in whom depression was a leading symptom was 50 years, as compared with 46 for the whole series.

Case 41. A woman of 44 complained of intense, burning pain in the shoulders and upper chest, headache, fatigue, palpitation and lack of energy. These symptoms first appeared not long after a major operation (removal of the womb, ovaries and appendix). On examination she was depressed and hypochondriacal. With encouragement, reassurance and sedation she did not improve at all, and was sent for electroplexy. She had ten treatments (with Pentothal and Scoline). Six months later she wrote: 'I still have pain but in a much lesser degree, and am pleased to say I am not depressed all the time like I used to be. The treatment I had helped a lot.' This patient had passed into a depressive state after her operation, as so many women do, and it seems most unlikely that she would have improved so much without electroplexy.

Four of the patients were ill enough with their depression to require electroplexy.

Association with other Stress Disorders

Twenty-one patients were suffering, or had suffered, from other stress disorders: for example, nine of the women had experienced one or more of the menstrual disorders listed above, four had 'indigestion' of the kind best termed abdominal discontent, and three had migraine. Five patients gave a history of 'nervous breakdown.'

Factors affecting Pain Intensity

The following were mentioned as adverse influences: fatigue, housework, rushing about, anger, 'bad nerves,' 'any upset,' sexual frustration, fear of intercourse, premenstrual tension, worry, domestic friction. Favourable influences were fewer: rest and contentment were among them. As a general rule, drugs gave little relief; some patients had been given, or had tried, a great variety of them; others had tried none. Some

patients described constant pain of unvarying intensity.

Case 18. A woman of 25 had pain in the neck and shoulders—'something in there—can't describe it. It never leaves me, all day and all night. Pills are no good.' She had married four years before, but there had been no intercourse. Her husband said of her: 'She's extremely highly-strung and timid. Terrified of sex. Pain always goes to the neck. Can't be left alone.' One meaning of the pain, in this case, was protection against normal sex relations.

While the immediate precipitants of attacks of pain were not always readily identified, over the whole course of the illness phases of greater discomfort coincided with times of adversity in life, and phases of remission with times of harmony and contentment.

Diagnosis

This rests on the familiar criteria for diagnosis of a stress disorder, that is (1) onset at a time of crisis in the patient's life, (2) time correlation of attacks with events provoking stress in the patient, and (3) cessation of pain when the provocative life situation had cleared, or the patient has learned to deal with it differently. The clinical picture, and the patient's story, often suggest the diagnosis at once; the pain chart, in itself, may be almost conclusive. Ellman and his co-workers concluded that a complaint of vague shifting pains suggested an underlying emotional disorder, while a complaint of localized pain pointed to organic change. In this series, pain in one or several areas, which did not move about, was the rule rather than the exception, and the pain experience, although it might be described in unusual terms, was not at all vague.

In order to comprehend fully the background of illness, it was as a rule necessary to extend the enquiry beyond the patient to other members of the family.

Case 20. A woman of 43 described pain in the back, shoulders and chest of a burning and aching character, fatigue, and depression. 'It all began when my husband had fits. Once I heard nothing for six weeks, then he came back with his head all bandaged, and didn't know me.' The household consisted of her husband and his mother, and a daughter of 19 (Maud), and all four were ill. At the time of her first visit to the clinic her husband was confined to bed. 'Mother-in-law has been queer. She's 77, and can be very awkward.' Maud suffered from severe period pain, and later was referred to a gynaecological clinic.

This was an illness of a family group rather than an individual patient; fluctuations in her dis-

comfort were related to ups and downs in the behaviour and health of the other three in the group.

Therapy and its Results

The principal methods were brief psychotherapy, sedative drugs in small doses, and techniques of relaxation. In many of the older patients, reassurance and emotional support were the only practicable measures. The technique of muscle relaxation, as taught by the physiotherapists, was very beneficial to some of the patients, but of little value to others. The argument against the use of physical treatment, such as diathermy, in tension pain is a strong one; that its use sets up the presumption in the patient's mind that the disorder is of physical origin, and that she need only submit to the treatment and 'let the doctors make her well.' This presumption is a considerable handicap in the continuing management of tension pain, since the patients come to expect that they will recover through activity of the doctor or the physiotherapist, whereas in fact the effort must be a joint one.

The results of treatment were as follows:

	No.
Group 1 Completely relieved	1
Group 2 Much better; still some pain ..	13
Group 3 Some relief	9
Group 4 No change	22
Group 5 Worse	2
Group 6 Improved, then relapsed	3

It will be seen that the largest single group is 4: 'No change.'

The extremes of the scale of recovery may be examined first. Two patients said that their pain was worse than at the time of first attendance at the clinic.

Case 2. A woman of 56 described 'very severe nerve pain' in the left leg, buttock and back. She had suffered pain in the back for 27 years. In 1946, a spinal fusion operation was carried out, but this gave no relief at all. In 1950, she was admitted to a psychiatric clinic for investigation of a depressive state. It was considered that her pain could not be explained by organic abnormality of the muscles or joints. After a review of her home background we came to the conclusion that the pain had an important double purpose in her life: it enabled her to compete for attention and sympathy with her husband (who had spondylitis), and it helped to protect her from the emotional demands of her daughter and grandchildren. Twenty-one months after her first attendance at the clinic, her husband reported that 'the pain is worse and continues 24 hours a day.' Treatment 'had not been the slightest use, absolutely no.' The home situation, in this case,

could not be changed, and the patient's age and limited resources of personality prevented her from profiting from psychotherapy, and making a different adjustment to it.

Case 12. A woman of 54 complained of aching pain in the back and left thigh. She was sombre in manner, and depressed. The pain and the depression appeared when her husband left her for the third time. Their relationship had not been happy; she knew the woman with whom he had gone to live, and felt acutely disappointed and hurt. A small business, into which she had put her money, failed, and the illness seemed to provide her with a solution, however unsatisfactory, for the otherwise insoluble problems of her life. Twenty months after her first attendance, she said that 'the pain in my hip and spine has increased . . . I am left to struggle on the best way I can.' None of the treatment she had been given, which included a course of electroplexy, had benefited her at all, and none seemed likely to.

One patient said she had quite recovered, and now suffered no pain at all.

Case 34. A woman of 62 drew on her chart a symmetrical pattern of pain down the spine and across the shoulders, described as 'excruciating, indescribable,' and pain drawn as a cap about the vertex, 'like a blow.' She was depressed and suffered from psoriasis. The pain began shortly after her son came home from Germany. 'His worries me. He's a bad boy; is seriously ill, was injured in Germany. Fear he won't write to me; ignores me. It's nerves. I've been good to him. Husband's turned against him. I know he's ill. I've only met his wife three times. I worry about it when I'm alone.' She was so depressed that electroplexy was contemplated, but a month later the depressive state had cleared, and with it the pain; 14 months later she reported that she was 'very fit and well, and so much better I am able to do eight hours work a day out of my home.' In this patient the illness was a reaction to the 'loss' of her son.

Three patients had improved with treatment, and then relapsed under stress. An example is given here.

Case 43. A woman of 50 described 'terrible' pain in the arms, legs, back and neck, palpitation and shakiness. She was very tense, and said, 'I'm keyed-up always. Father's been ill for two years. I've had a lot of worry.' She was taken on for treatment by narcoanalysis, and showed some improvement. Eight months later, she reported, 'I went away for a holiday, and felt much better, although I still had the pains in my head, but unfortunately for the past month I have been very upset over family affairs and have not been at all well; in fact I panic at the least thing and

shake all over, also am very depressed. My rheumatism was less severe but it has now all come back again.'

Thirteen patients said they felt much better and had only slight pain, or pain at intervals. These were in the main patients who had attended regularly for psychotherapy; the mean number of interviews was eight. Changes in the circumstances of life contributed to the improvement in several patients; for example, one woman who had suffered much ill-treatment at the hands of her husband reported that she was very much better, and had less pain; her husband had reformed, and she had a new flat. Relief of tension through ventilation of feeling at interview, and increase in insight and tolerance were the principal therapeutic agents.

Case 13. A woman of 39 described a 'hammering' pain in the head and neck, and aching pain in the shoulders and back, lack of energy, poor sleep, depression and period pain. The headaches were of migrainous type. She was very concerned about her husband, and about her son. The son was 12. 'He's gone through a funny period. Only child. I want to face up to my difficulties. I'm responsible for Tim. I had no mother.' She was so worried about Tim that it was thought best to send her for advice to a Child Guidance Clinic. At her interviews in the clinic, she spoke freely about her husband: He's so unreliable—lying, cheating, horrible. It's gone on for years. More than I can stand. I would leave him if it weren't for Tim.' She knew from experience that both the muscular pain and the 'bilious attacks' followed stress. She attended eight times for interview, and 20 months after her first visit reported that she felt better, and was little troubled by pain if she could work at her own pace. Reassurance about Tim's well-being had helped her considerably.

The factor of utilisation of pain was not prominent in this group.

In spite of all our efforts, the patients in Group 4 did not improve. The mean period of follow-up of this group was 14 months, and an appraisal of their clinical state at the time of follow-up led to the conclusion that treatment had not helped them in the least. The group included eight who were seen more than five times each, and in all of these an attempt was made to help the patient understand the meaning and purpose of the disorder, and to attain a better adjustment to life, but the attempt plainly did not succeed.

When we come to examine the reasons why the tension pain, in this group of 22 patients, resisted our therapeutic endeavours, the following may be suggested:

(a) An environmental situation so uncomfortable

that the patient, although of reasonable intelligence and resilience, could not tolerate it without symptoms (six cases).

Case 19. A woman of 53 marked on her pain chart large areas on the thighs, arms, hands and head; the pain was described as 'toothache.' She was so depressed that at times she wondered if life was worth living. The illness began during the war, after the death of her daughter. 'She died after a manipulation. There was an inquest. It played on me. That was the start of it.' She had been a widow for 14 years, and then remarried, but 'it didn't work out. He was a real nagger. Had an ulcerated leg. I had to go to the Probation Officer. Husband had three goes at mending his ways, but got no better. After he died, in 1951, I had a relapse. I had held it at bay.' When she first came to the clinic, she was living with her father. 'He's an awful trouble. Is old. Swears at me. He's ill, always calling on me. Get browned-off. I get angry and walk out. He has a terrible temper. Used to hit mother. He lost £6,000 on the dogs. Anger makes my legs ache. There's no-one to talk to. Father is damned hateful.' The only way the patient could find of escaping from home was to do a part-time sedentary job, but she had while at home to wait upon her father, who was crotchety and ungrateful, and her life was unsatisfying and narrow.

(b) Incapacity to adapt to life circumstances by reason of limited intelligence, or emotional instability, or both (ten cases).

Case 4. A woman of 57 complained of burning pain in the head, neck and face, a feeling of discomfort or 'staring' in the eyes, tension, irritability and dyspnoea. She was an inhibited person with an immobile expression, whose immobility covered a good deal of aggression. 'I get rude to people, then feel sorry. All over the place if I'm worried. Think it's a nervous trouble. Feel the tension. I don't want to be angry. Really I like people, and don't want to annoy them, but am highly-strung, sensitive. Not right for my eyes to look as they do. I look different to others. Relations comment on it rudely. Feel self-conscious. Feel my eyes are fixed.' When asked what was the main source of tension, she replied, 'my general irritability.' This and her rather paranoid attitude towards the world had led to a protective self-isolation; she could not adapt to everyday life and retreated into a little haven of her own. The illness in this patient was an essay in the handling of aggressive impulses.

(c) Utilisation of illness: 'pain with a purpose' (four cases).

Case 31. A woman of 27 described aching pain in the back and a drawing pain in the perineum.

She had suffered some pain in the back from the age of 19, but it did not get really troublesome until just before her marriage. 'I knew nothing of sex, had no interest in boys. Husband was the first boyfriend. On my honeymoon, was shocked, had pain, was very upset. Now I refuse him a lot, and this upsets both of us. Don't have any urge for intercourse.' The patient was a timid, dependent person, much attached to her mother; she seemed quite unable to accept an adult role in sexual relations, and her pain served as an effective defence. At the time of follow-up, she reported 'the pain is as bad as it was. Treatment at the clinic made it worse, not better.' This patient failed appointments which had been made for her, and it was felt that she had no real motive for recovery at all.

(d) The puzzling case, when the pathogenesis of the pain was quite obscure (two cases).

Case 40. A woman of 43 complained of pain of thumping or throbbing character in the temples, pulling pain in the neck and in the right arm, tension and depression. At interview she was so extremely tense and tremulous as to suggest a thyrotoxic state. She had spent some weeks in hospital the year before with an illness of uncertain origin which suggested an encephalitis. She said her pain had begun at the time of a lumbar puncture in hospital. She had suffered from anxiety symptoms for some years before this illness, and had had two or three 'nervous attacks.' She did not benefit from Thiopentone treatment, and the tension state became so acute that she was recommended for admission to a psychiatric clinic. She would not remain there, however, and discharged herself after ten days. 'I still have dreadful pain in the head and neck. Nothing relieves it.' No outstanding cause for the tension could be found in her history or home situation, and the only conclusion we could arrive at was that the illness was perhaps a consequence of physical changes in the nervous system following an encephalitis in a person of anxious disposition.

Psychophysiology of Tension Pain

No consistent personality type was found in this series, which contained some obsessional people, some with an hysterical disposition, and some who might almost be classed as normal people in difficulties. If this series is representative, the utilisation or exploitation of illness in patients with tension pain is more common than in patients with migraine, say, or duodenal ulcer; the failure to maintain contact with the clinic, and the disappointing results of treatment also point in the same direction, namely, that tension pain seems to be more often employed to some purpose in the

patient's mental economy than is usual with other stress disorders.

It would make for neatness if we could say that the emotional 'charge' which found bodily expression as pain in these patients was uniformly aggression, but this does not conform with clinical observation. If the doubtful cases are omitted, the emotional state in the remainder covered a wide spectrum which included anxiety, grief, guilt, depression, and disappointment as well as the aggressive emotions, and in many patients the emotional state was a blend of several of these. An arbitrary division of the series can be made on the basis of the predominating affect: anxiety 19 cases, pent-up aggression ten cases, depressive state 19 cases.

Fear of cancer, or other ominous disease, was mentioned by many patients. The notion of pain as a penance, in expiation of strong irrational guilt-feelings, was often useful in comprehending the meaning and purpose of the illness. In some of these patients, the enduring of a painful illness was less unpleasant than facing up to the reality of their deeper feelings.

The reasons for the 'choice' of bodily pain as a mode of stress response were not always clear. Some patients took over the illness-pattern of pain or 'rheumatism' from a parent, and the mechanism of identification with a loved person who is ill operates here. In others pre-existing organic change (for example, degeneration in a joint) determined the 'focusing' of symptoms in a particular area. Discomfort was often found to be experienced in an area which had been the site of pain during an earlier illness or injury.

An important practical outcome of this study is that it may help us, in the future, to 'select out' those patients who are unlikely to do well with any therapeutic measure, so that the time of physicians is not taken up on such patients when it can be more profitably employed elsewhere.

Incidence

The incidence of tension pain is not known, but from the evidence we have it may be presumed to be a fairly common disorder. Halliday¹ showed that 'fibrositis,' or one of its synonyms, was the label applied to 10 to 15 per cent. of the insured population incapacitated for work. Hench and Boland⁵ reported that 'psychogenic rheumatism' was the second most common diagnosis in the first 1,000 cases at the Rheumatism Centre of the Army and Navy General Hospital.

Referral to Hospital of Patients with Tension Pain

We have no figures for the number of patients with tension pain who do not attend hospital:

that is, who put up with the pain, or take their own remedies for it, or attend the family doctor's surgery and are treated by him. When tension in the situation, or the patient, or the doctor, rises to a certain point, she is sent to hospital, and three questions then ask themselves: Why, When and Where.

This is not the place to pursue the Why and the When, except to say that pain is always a threat, to the doctor as well as to the patient. The emotional demand of the patient with pain is more pressing and more urgent than with other symptoms; in this respect it resembles itch. Itch and pain have a good deal in common.

The determinants of Where (if we set aside matters of administration) are (1) the site of the pain, and (2) the sophistication of the doctor. Women with pain in the back and shoulders tend to go to the Department of Physical Medicine; in the midriff, to the Medical Department; in the lower abdomen, to the Gynaecological Department; in the lower back, to the Gynaecological or Orthopaedic Department.

A woman of 34 was sent to the Orthopaedic Department with the complaint of backache. The pain was continuous from morning to night and aching in quality. On being asked how she felt apart from the pain, she replied 'Not well, low.' She had had a repair operation for prolapse of the womb four years before, and since then had never felt really well. Everything was an effort, and she felt no zest for life. In the summer of the year before she had suffered from menorrhagia for several months, for which no organic cause had been found. On examination her joints were very mobile, and there was no sign of organic change. In summary, then, the diagnosis was depression with tension pain and menorrhagia as two of its signs.

Now there may be nothing especially orthopaedic, or rheumatic, or whatever, about the illness; the department of referral is chosen because of the site of the pain, and not its aetiology. This accident of referral may influence the whole subsequent history of the patient, since patients who appear in a special department are apt to be

treated by the methods which that department normally adopts; there are usually physical methods, and as we have seen, while treatment such as diathermy, of itself, may relieve tension pain while it is being given, if the causal stress is not removed the pain will recur. Operative procedures in patients with tension pain almost always have two untoward effects: the pain gets worse, and it becomes difficult to relieve, or quite intractable. There is only one operation which has been reported to give good results—prefrontal leucotomy—and that can be recommended but rarely.

Summary

A series of 50 patients with tension pain were given a physical and psychiatric examination. Pain was the sole symptom in only four patients; in the remainder other signs of emotional tension were present as well. Twenty-nine of the total gave depression as one of their complaints, and four were ill enough with their depression to require electroplexy.

The results of treatment were disappointing, the largest single group being 'No change' (22 patients). The referral of patients with tension pain to a particular department of a general hospital often seems to be determined by the site of the pain rather than its aetiology.

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