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An Address ON SOME CLINICAL ASPECTS OF PAIN.*

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PAIN is the commonest symptom of disease; there is no symptom more informative to the practitioner and none at times more misleading; again, there is no symptom more distressing to the patient and none that so often gives rise to mental misconceptions.

The subject of pain bristles with attractive problems, to some of which only is it possible to refer. A rambling discourse, with reference to illustrative cases, would appear to be more suitable for present purposes than a systematic disquisition. If, then, certain aspects of pain are dealt with in what may appear to be a sketchy and haphazard manner, no apology is called for, since it will be thereby possible to cover a wider field.

What do we mean by pain? While the word is sometimes used to express a state of mental anguish or distress, it is commonly applied to a recognized type of bodily discomfort. It is to pain in this sense that these remarks refer. Here again, however, it is to be remembered that one individual will describe as pain a sensation to which another would not apply the term. Pain is indeed difficult to define, but since we all know what we mean when we speak of pain, in the common acceptance of the word, a definition would appear to be unnecessary.

Does pain fulfil any useful purpose—is it, in other words, of any economic value? If not, why should the human race be cursed by a symptom which is the cause of so much suffering? The pains of labour afford an instance, perhaps the only instance, in which pain is the constant accompaniment of a physiological process. But since the pains of labour are related to the evolution of civilization—for they are, I understand, comparatively trivial in the primitive races of mankind—they may perhaps be regarded as pathological. Sir Charles Sherrington has referred to pain as “a psychical adjunct to a protective reflex.” Pain is indeed a protective danger signal, and, since it affords a warning that all is not well, it fulfils an invaluable purpose. In so far as pain is informative it must be regarded as an indispensable blessing, while it is, at the same time, one of the curses to which the human flesh is heir.

All the information regarding subjective pain that we possess has been acquired from personal experience or from the statements and reactions of the sufferer. On the other hand, our knowledge of objective pain and its subservient mechanism has been largely derived from a study of (1) the effects which result from localized disease of, and more particularly injury to, the peripheral nerves, spinal cord, and brain; (2) the phenomena which follow experimental nerve division in man; and (3) the “referred pains” and areas of cutaneous hyperalgesia which are met with in disease of the various viscera. Animal experiment has afforded us but little help in this connexion. Do the lower animals feel pain, and, if so, to what extent? This

is a question which is difficult to answer. Professor Edinger of Frankfurt, one of the greatest comparative anatomists of his day, was of opinion that the lower forms of vertebrates, in which the pallium is wanting, do not feel pain. On the other hand, we now know that in man the thalamus is the centre in which crude sensations of pain are experienced. The reflex withdrawal of a limb which follows the application of a stimulus is no proof that the animal suffers pain. This is an independent phenomenon, as is demonstrated by the fact that in certain cases in man, in which conduction in the spinal cord has been interfered with by disease or injury, the lower limb is drawn up reflexly when the skin is pinched, although there is no accompanying painful sensation. Sir Edward Sharpey-Schafer writes: “Nothing is more certain than that pain is not a primitive sensation; it is in fact the latest sensation to be evolved.” There appears, indeed, to be no doubt that the appreciation of pain is more acute the higher we ascend the evolutionary scale.

Individuals differ greatly in their sensitiveness to, and tolerance of, pain. Some are hypersensitive, others hypsensitive. Again, the threshold for pain in the same individual differs in different situations, and varies from time to time and under different circumstances. Further, while one individual tends to minimize, another tends to exaggerate. This tendency, which applies to all subjective symptoms, may be “temperamental,” while, on the other hand, it may be determined or influenced by extraneous circumstances. Unfortunately we possess no instruments of precision or other means whereby the clinician can measure pain and record comparisons in scientific terms. A conclusion can only be arrived at in terms of a general impression after a judicial consideration of all the circumstances. The appreciation of the subjective constitutes a large part of the art of medicine.

Anatomical and physiological considerations regarding the path of the nerve fibres which conduct painful impulses need not detain us. Suffice it to say that there are special afferent fibres which pass by way of the peripheral nerves to the spinal cord and brain stem. Soon after entering the central nervous system the path for pain decussates and terminates in the optic thalamus. Here the nerve impulses are appreciated in terms of pain and are recognized as diffuse, unlocalizable, disagreeable sensations. The function of the cerebral cortex, which is directly connected with the thalamus by fibres arising in the latter, is to localize these sensations and analyse their significance.

Pain is usually due to excitation of peripheral nerve terminals, but it may be directly determined by stimulation of the peripheral nerves, while it is very exceptionally a consequence of disease which involves the conducting tracts in the spinal cord and brain stem or the thalamus itself. Most of us have probably met with cases of epidemic encephalitis in which intense pain has been a striking symptom. The thalamus is often implicated in this disease, and the pains which result may present similar features to those met with in the thalamic syndrome of Dejerine.

The manner in which pain may be produced, as a consequence of excitation of the peripheral nerve terminals, calls for passing notice. Noxious stimuli of various kinds may, as we are well aware, excite the nerve endings in the skin and give rise to pain; again, we have all experienced the pain which accompanies muscular cramp, and we have observed the hyperalgesia of the muscles in alcoholic neuritis and the analgesic muscles in some cases of tabes; further, we are familiar with the joint pains in an acute arthritis, and with the excruciating pain in cases

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in which malignant tumours involve the bones. But the problem of pain in relation to visceral disease is somewhat different. When such organs as the lungs, the liver, or the spleen are affected by disease, pain is not complained of unless the investing serous membrane is implicated. Then, again, ulceration of a hollow viscus may exist for years without producing the slightest distress. "It is, indeed, a basal fact of clinical observation," as D. P. D. Wilkie writes, "that most abdominal pains, if we exclude those of the parietal peritoneum, are due either to spasm of, or tension in, the hollow viscera." The pain in such circumstances, as exemplified by the various types of colic (gastric, intestinal, biliary, renal, etc.), is either a direct consequence of the spasmodic contraction of the muscular tube in its attempts to force its contents beyond an impediment, or of a passive distension of the tube above the site of obstruction. Then, too, it is an interesting fact that pains arising in the internal organs are very inaccurately located and are misreferred, as reflected or referred pains, to more or less definite areas of skin on the surface of the body corresponding to the spinal segments from which the organs in question are innervated. There is, too, another well-recognized causal factor in the production of pain. I refer to interference with the blood supply, as exemplified by Raynaud's disease, intermittent claudication, and some cases of angina pectoris associated with disease of the coronary arteries. How difficult it is to appreciate the characters of a sensation one has not personally experienced; how difficult even for the trained observer to describe his sensations, how difficult to gauge the intensity of pain in the individual case!

A physician of wide experience once asked me to examine him, since for three days he had been troubled with what he described as a severe pain, which he referred to the side of the chest. Upon examination I found no objective signs, and ventured to predict that the pain might be the precursor of an attack of herpes zoster. "I have seen many cases of herpes zoster," said the patient, "and I am sure that this is not the pain of shingles." Nevertheless, on the following day the herpetic rash made its appearance.

The practitioner is called upon to regard the symptom pain from three points of view: first, as a phenomenon which often affords important information in diagnosis; secondly, as a symptom which may in itself call for treatment because of the distress or disability it produces; and, thirdly, as a possible source of misconception on the part of the patient; this, if uncorrected, sometimes determines a state of apprehension and anxiety, which may culminate in prolonged or permanent invalidism.

Pain is responsible for many diagnostic difficulties and pitfalls. All of us have met with cases in which a referred pain from a basal pleurisy has closely simulated appendicitis, with pain referred to the left breast by women suffering from pelvic disease, and with epigastric pain due to disease of the dorsal vertebrae. Again, we have met with cases in which the pains of tabes dorsalis have simulated disease of the stomach and other organs, and cases of hysteria in which acute visceral disease has been so closely imitated that the surgeon has been induced to open the abdomen. Many other instances of the kind might be cited. But it is not my present purpose to discuss the significance of pain as an indication of organic disease, the misleading features it may present, and the many niceties in diagnosis which occur in this connexion. Nor is it my intention to refer further to the treatment of pain attributable to, and adequately accounted for by, obvious physical causes. I would now consider another aspect of pain which calls for consideration, the more so since it does not perhaps receive the diagnostic attention which its importance merits.

Whereas pain is commonly attributable to physical causes and may consequently be termed physiogenic, since it is directly referable to a recognized physiological mechanism, it may, on the other hand, be of mental origin, or at least modified by the attitude of the mind. To this type of, or factor in, pain the term "psychogenic" is applicable. Reluctant as one is to adopt a nomenclature which is not in common usage, this becomes imperative if the terminology expresses an idea which serves to clarify existing conceptions. The terms "physiogenic" and "psychogenic" are peculiarly applicable to

the symptom pain, for, as R. D. Gillespie points out, "the differentiation of physiogenic from psychogenic is not precisely the same as the differentiation of 'organic' from 'functional,' for 'functional' can be physiogenic." A correct appreciation of the etiology of pain in any given case is a necessary preliminary to rational treatment, hence the necessity for a precise etiological terminology. My remarks have so far been devoted to a brief consideration of physiogenic pain; let us now consider some aspects of its psychogenic counterpart.

The attitude of individuals towards pain is very different. I have by me a pamphlet written by a layman nearly two hundred years ago, evidently an irresponsible, happy-go-lucky fellow with a keen sense of humour; would that we could all share his cheery optimistic attitude as he writes upon the "Honour of the Gout"! Listen to what he says:

"Get me two men together, one that never knew Pain, and another newly recovered of the *Gout*; observe them both narrowly. In the former, perhaps, you may perceive an easy, even Temper, but the latter is ravished with Joys and Satisfactions, which if his tongue does not declare, his Hands, and Feet and Gesture shall. . . . Such are the lucid intervals between Heart-breaking Fits of the *Gout*, with all its Ravings and Roarings which the violent Paroxysm forces from the tortured Patient; and who would spoil the refined Pleasure of his Recovery, by wishing to have one angry Throb, one heavy groan bated him? . . . O, so pleased, so joyous, so happy, so blessed will you be, when the Turn of Health shall come. Why, Sir, you will be in Heaven, in Heaven while you are on Earth."

We do not like to be advised to curtail our interests and forgo our pleasures; we may, indeed, resent advice to this effect.

A lawyer, a man of ability, consulted me some years ago, not because of pain it is true, but on account of sleeplessness—a symptom which he said had troubled him for many years. As a result of my inquiries I ascertained that the patient was a very heavy smoker, that he had once given up smoking for six weeks, and that during this period he had slept well. The result of a prolonged examination was otherwise negative. The therapeutic indications appeared obvious, but when it was explained to the patient that the evidence was most suggestive to the effect that tobacco was the cause of his insomnia, and that he should at least cut down his smoking, his reply was, "I did not come to you to be told that, doctor, but to get something for my sleeplessness."

A forcible expression of opinion is sometimes necessary if it is to be effective.

A society woman, accustomed to enjoy to the full the pleasures of life, complained of a precordial pain which was interfering with her activities. She was seen by a heart-specialist of world-wide reputation. A few questions and a brief examination served to elicit the essential facts. The diagnosis presented no difficulty, the indications for treatment were obvious, and after a short talk the physicians returned to the patient's room. "My lady," said the specialist to the spoiled child of fortune, "you are suffering from a pain which you are right in supposing is due to your heart. I might give you something which would relieve the pain, but I don't propose to do so. The pain is a warning to you to curtail your activities and live a different life." With this remark he turned and left the room. The advice was perhaps not unexpected, but the manner in which the opinion was expressed was so unlike that which the patient had been accustomed to receive from the physicians whom she had previously consulted that it came as a thunderbolt. Whether it achieved its purpose history does not relate.

Such is human nature! After all, we can only put the facts before our patients; it is for them to decide whether they will follow our advice. The doctor can only advise, he cannot coerce.

The influence of the attention upon pain is familiar to us all. We know that when we concentrate our attention upon a pain the pain is intensified, while, conversely, when our attention is distracted or otherwise occupied, the pain is much less apparent. The mother of the teething child tries to engage the child's attention, and when she is successful the pain is for the time being forgotten. This fact, which is constantly applicable to the subjective symptoms of disease, is of great therapeutic importance, especially in those cases in which the fixation of the attention upon the symptom in question is determined by anxiety as to its significance.

This observation raises the question whether, or to what extent, pain may persist as an after-memory, the conse-

quence of a stimulus that now no longer exists. Although unusual, this undoubtedly occurs. Fortunately our memory of pain is usually short-lived. I cannot, for instance, recall the case of a woman who has continued to be distressed by the memory of her labour pains after her child was born. The explanation may be that the pains, intense though they were at the time, are of short duration. On the other hand, it may be that the mother's thoughts are so concentrated upon the newborn infant, or on other matters, that her attention is distracted from her previous suffering. Again, it may be that she knows that the cause of the pain is now non-existent. An illustration of the fact that a pain may persist as a memory in the brain, after the peripheral stimulus which was originally responsible for its determination has ceased to act, is afforded by the following case.

A miner was admitted under my care suffering from sciatic pain, which he informed us had been continuously present and had incapacitated him for two years. The ankle-jerk was absent in the affected leg, an indication that he had almost certainly had a sciatic neuritis. On the other hand, there was no tenderness on pressure over the sciatic nerve or its branches. The patient appeared to be a good fellow, he was receiving no compensation, and he told us he was very anxious to be cured and to get back to work. After considering the facts we came to the conclusion that the pain was an after-memory. He was told of the conclusion we had come to and our reasons explained to him. The pain disappeared in a few days, the patient returned to work, and continued to work steadily from that time on.

A diagnosis in a case of this kind is often very difficult, notably when evidence of structural changes coexists which would appear to be sufficient to account for the pain; while, further, a confident diagnosis is essential if a cure is to be effected.

Some individuals are able to experience pain by an effort of the imagination—pain which is as intense as a pain due to peripheral stimulation. Thus a friend of mine, a very able member of our profession, tells me that he can imagine himself sliding down a sloping roof until his heels come into violent contact with the balustrade below. He says that he can feel the pain in his heels and the jar to his spine as vividly as if the accident had actually occurred.

Now if pain can be voluntarily induced, and if it may persist as an after-memory, it is not difficult to realize that it may originate in an idea. There can, indeed, be no question that some of the neuralgias, neuritic pains, rheumatic pains, and headaches with which we meet in practice are so determined or maintained. Again, we must remember that psychogenic pain is very real pain, and consequently, in speaking to the patient, it is inadvisable to use the words "hysterical" or "imaginary," for, unless we explain exactly what we mean, these expressions are apt to be misunderstood, and our supposed attitude may be resented by the patient. The following case of psychogenic pain is so instructive that I am tempted to describe it in some detail.

The patient, a man in the early twenties, a cripple since childhood, whose every want had been attended to by a devoted mother and sister, was admitted to a nursing home. A history was obtained from the patient's medical man to the effect that he had been called to see the patient some eight weeks previously, when he found him suffering from a severe pain over the left side of the chest, near the costal margin, for which, upon examination, he could find no cause. The pain continued to recur at the same time—ten minutes to ten each night. It was very severe, and drugs failed to relieve it. Every night for the six preceding weeks the doctor had had to keep the patient under the influence of chloroform for nearly two hours; the pain then passed off until the following evening at the same hour. When seen, on the afternoon of his admission to the nursing home, the patient stated that he felt perfectly well, excepting at those times when he was suffering from pain.

Upon examination no objective signs were detected to account for the pain. The conclusion was come to that the pain was psychogenic in view of its periodicity, the fact that the patient appeared to be unduly suggestible, the obvious concern shown by his relatives in his presence, and the absence of any other adequate explanation to account for the facts. The diagnosis was incomplete in that we failed to elicit the determining mental factor which had been responsible for the localization of the pain, a point of the greatest value in establishing, or corroborating, the diagnosis in cases of the kind. A line of action was deter-

mined upon, and the physicians returned that evening shortly before the hour when the pain was to be expected.

The picture was one never to be forgotten. The room was dimly lighted, the patient was breathing heavily and was apparently asleep. His mother, his sister, and two nurses were in attendance. As the physicians entered the room the mother approached them with her finger to her lips, and whispered, "It is not quite time," and they sat down to wait in an expectancy of silence. Precisely at ten minutes to ten the patient moved in his sleep, and began to give vent to groans, which gradually increased in intensity as he rolled from side to side in apparent agony. In accordance with a preconceived plan the patient was asked to inhale some amyl nitrite, with the remark, "This will help you." When asked after a minute or two whether the pain was improving, the patient's answer was "Not yet." This response was in itself encouraging. A few minutes later the patient admitted that the pain was abating, and before long he said that it had gone. Then he was told, "You will have no more pain," and the physicians left the room. The patient's mother and sister followed. "It is wonderful," they said; "will you come to-morrow night and give him some more treatment?" The reply was, "No; there will be no recurrence of the pain, but we want you to leave the patient to the care of the nurses and not visit him again until we give you permission." The prediction was correct; the pain did not return.

This case serves to impress many lessons. Thus, among other things, it demonstrates that severe pain may occur in the absence of an organic or other accountable physical cause; that precise and inexplicable periodicity should suggest the possibility, although it does not necessarily imply, that the pain is of mental origin; that a diagnosis of psychogenic pain is based partly on the exclusion of an adequate physical cause and partly upon an estimation of the individual's suggestibility, together with a consideration of his attitude to his surroundings and the detection of a determining factor to account for the localization of the pain; that a psychogenic pain may be fostered by undue attention; that a pain of the kind may be cured by suggestion or persuasion; and that, in successfully dealing with such a pain, confidence in diagnosis and a confident expression of opinion are essential.

The psychogenic factor in pain is often determined and often maintained by suggestion. How foolish people are! They are constantly making remarks to their friends who have been or are ill. "How are you?" "You are not looking up to the mark." "You look as if you require a holiday." "I hope your pain is easier," and so on. Such remarks draw the patient's attention to his condition, the very thing we are so anxious to avoid. The individual in whom the psychogenic factor is prominent is for the time being a suggestible individual.

A psychogenic pain may be suggested by a previous illness.

A man who had suffered in early childhood from tuberculous disease of the spine fell and struck his back. From that moment he complained of pain in this situation. When examined some weeks later there was evidence of old tuberculous disease of the spine, but no indications of fresh injury. The patient had not apparently fallen very forcibly, yet he complained of severe pain in the region of the old disease. After a careful consideration of the facts the conclusion was come to that the pain was psychogenic. A confident opinion was given to the effect that the pain was not due to a recrudescence of the disease, the patient's anxiety was relieved, he was encouraged to move and walk about, and in two or three days the pain had disappeared.

Again, pain may be suggested by the surroundings in which it had originally appeared.

A woman had an extremely painful whitlow, which was opened, and was followed by nerve pain and sensitiveness of the finger, which persisted for months. Some two years after the pain in the finger had disappeared the patient revisited the locality where the whitlow had developed, and for two or three days she experienced the old pain in the finger, which she correctly attributed to the associations attached to her former experience.

Pain may be suggested by the illness of another. We have all met with instances in point. Then, too, pain may develop as a defence mechanism.

A young married woman had a miscarriage soon after her marriage and developed a perineal pain, which made intercourse impossible. A gynaecologist could find no local cause to account for this pain; the patient was in no way averse to intercourse, but inquiry showed that she believed that she was abnormal, and had an exaggerated fear as to the danger of parturition. When she realized that there was no reason for the fears she entertained the pain speedily disappeared.

Pain may be fostered in association with an inferiority complex. An individual recognizes that he is not up to what is required of him, and in some pain or other symptom from which he suffers he finds an excuse which will afford an explanation to the outside world and serve to maintain his self-respect.

We practitioners are apt to be too materialistic in our outlook. We are always searching for something objective to account for pain and other subjective symptoms to which, when found, we can attribute *all* the symptoms, often forgetting the part played by the mental attitude of the patient. Many of us can recall the day when the discovery of a movable kidney afforded us so much satisfaction. Here there was something to account for vague abdominal symptoms and for a neurosis from which the patient was suffering. Was not the proof to be found in the fact that the fixation of the kidney was, in some cases at least, followed by pronounced improvement? We failed for long to realize that by erroneously attributing symptoms to a movable kidney, of the existence of which the patient might be unaware, we were associating in the patient's mind the neurosis with the kidney; that she was only too pleased to have something tangible to which to refer her symptoms; that the movable kidney was in no sense responsible, but that once having produced this association in the patient's mind the symptoms would probably persist so long as the patient was aware of the physical condition which she regarded as their cause.

A lady consulted a surgeon because of abdominal pain, and he diagnosed a movable kidney, which he stitched to the abdominal wall, with the result that the pain completely disappeared. Six months later the patient happened to meet the surgeon. He asked her how she was, and she replied that the operation had been a complete success and that she had had no more pain, but, she said, "for the last day or two I have had a little pain here," pointing to the other side of the abdomen. "Oh," said the surgeon gravely, "I wonder whether the other kidney is loose." The kidney was not palpable, but from that day the patient complained of pain which she attributed to her kidney.

There can be no question but that we often suggest symptoms to our patients by drawing attention to phenomena of the existence of which they had previously been ignorant. Some of us remember the pleasure we used to take in demonstrating a case of hysterical hemiplegia—the loss of pain sensibility, the defective vision, hearing, and smell, the contraction of the visual fields, and so on. All these phenomena were merely indications of suggestibility, and the clinician was often, no doubt, responsible for producing them. When one examines a patient who is obviously suggestible, one does not ask him whether he feels the prick of a pin, but one says to him, "You feel that quite well, don't you?" and his reply is almost always in the affirmative, provided that he has not been previously examined. The man who has x-ray photographs taken in cases of visceroptosis and shows them to the patient in order to demonstrate the dropping of the viscera, and impress the patient with his diagnostic skill, is indeed a dangerous fellow, for, while visceroptosis may cause symptoms, it is often symptomless, and the last thing we wish is that the patient should erroneously attribute his discomforts to a physical cause we are unable to rectify.

We are all only too familiar with the pains complained of by the hysterical subject, the individual who believes that others fail to understand, and to give her that pity she feels that she deserves, whose craving for sympathy amounts truly to a vice. The state of mind of the litigant who suffers from pain, which he attributes to his accident, and the desire for material sympathy, is very similar. Impressed by what he regards as the injustice of those who, he believes, are either biased or regard his case from a too optimistic standpoint, he feels he must accentuate his sufferings to make them understood.

A type of case which presents great difficulty in diagnosis is well exemplified in the nervous woman who suffers from chronic abdominal pain. Here it may be extraordinarily difficult to apportion the physiogenic and psychogenic elements. None of us who have read that masterpiece of clinical picture-painting in which Robert Hutchison describes these patients is likely to forget it. "She is a connoisseur in doctors, specialists, and treatments, she

has often acquired the operation habit, and although any new therapeutic plan usually relieves her for a time, the relief is always very short-lived." Chronic invalidism might often be prevented if these cases were recognized in their early stages, and, if I may say so without offence, saved from the machinations of a materialistic surgeon who ignores the mental side of the picture, and by plicating the stomach or fixing the dropped bowel—operations which are nowadays fortunately going out of fashion—often merely serves to perpetuate a clinical picture which in many cases, at least, is very largely of mental origin, although no doubt determined in the first instance, as is almost all psychogenic pain, on a physical basis.

If the medical man may be so deceived as to the cause of pain, we can readily understand that the patient may attach a quite erroneous interpretation to this symptom. It is natural that he should associate the pain with an organ which he believes lies in its immediate vicinity. We have all met with patients suffering from lumbago who have come to us under the impression that they must have disease of the kidneys, or complaining of precordial pain which they believe is an indication of cardiac disease, but which is actually due to heartburn.

Misconceptions of the kind are in themselves harmless unless the patient becomes anxious as to the cause of his pain, when a state of introspection may be initiated. This may culminate in an anxiety neurosis, and result in a disability as pronounced and as persistent as that due to grave organic disease. Indeed, as an experienced practitioner recently remarked to me, "an anxiety neurosis wrecks many a man's life." Now an anxiety neurosis is easily produced, and the practitioner is often responsible. If a tendency to introspection is recognized in its early stages it can usually be effectively dealt with, but if it is permitted to become a habit, like all habits it is difficult to correct. One of the most important qualifications of the practitioner consists in his ability to visualize a case from the patient's point of view, to recognize anxieties when these exist, and correct them where this is possible.

Reference to some general diagnostic and therapeutic principles may prove useful in dealing with patients, particularly those who are obviously anxious-minded, in whom pain or other subjective symptoms are predominant. A patient commonly consults a doctor for one of two reasons: on the one hand, it may be that the pain or other symptoms of which he complains are so distressing that they are interfering with his daily duties or his personal comfort; or, on the other hand, it may be that he fears that the symptoms in question, though not severe, are the precursor of illness which may temporarily or permanently incapacitate him or perhaps even prove fatal.

While in the majority of cases pain is attributable to, and adequately accounted for by, obvious physical causes, in some the severity of the pain and its persistence appear to be out of proportion to the physical condition, and in others no physical condition can be detected. In such circumstances the question arises, Is the pain in whole or in part psychogenic, or is the patient wilfully exaggerating or malingering? The answer to this question is often a matter of great difficulty, and an opinion can only be arrived at after a full consideration of all the data. Among these the following are deserving of special mention—namely, the situation and character of the pain, its constancy and intensity and circumstances which appear to influence it; the cause to which the patient attributes his pain, and possible misconceptions on his part which call for correction; the personality of the individual, his behaviour, his surroundings, his suggestibility, and his general outlook on his case; his responsibilities and sense of responsibility; the existence of an inferiority complex, his financial position, and, it may be, the question of compensation and his attitude towards it.

When one examines a patient whose symptoms there is reason for believing are psychogenic, or who, one feels, may be exaggerating, it is essential that the patient should not realize one's suspicion. He should feel, indeed, that one fully appreciates his trouble and sympathizes with him, for it is only by adopting such an attitude that it is possible to gain his confidence. The patient should be examined alone and his story patiently listened to, for the

history is of great importance. Direct questions as to the presence of symptoms of which the patient has not complained are to be avoided. A thorough, if rapid, routine examination should be carried out on the first occasion, if only to impress the patient with the fact that nothing has been omitted. Again, as one organ after another is examined, it is advisable to say, "Your heart, at any rate, is quite sound"; "your lungs are quite healthy," and so on, for it must be remembered that the patient may have fears which he has for the moment forgotten to mention, or has purposely refrained from mentioning. If there is evidence of organic disease it is best to tell the patient so; we must take him into our confidence, and explain to him exactly what significance we attach to it. When the opinion is expressed to the patient it must be as dogmatic as the facts permit, there must be no prevarication, and the symptoms to which he attaches special importance must be specially mentioned.

Finally, if no organic disease is found, don't clap the patient on the back and say, "There is nothing the matter with you, old fellow." This, it is true, may be all that is required in some cases, but other patients will go away and say, "By Jove! that doctor would know there *was* something the matter if he had my trouble." No, we must try to give the patient an intelligent and intelligible explanation of his symptoms. If the patient asks whether his symptoms are "imaginary," we must clearly explain to him what is implied by the word "imaginary," that there is nothing to be ashamed of, and that these pains may cause just as much suffering as those due to organic disease. We practitioners, I repeat, are often responsible for creating and perpetuating states of invalidism, either from want of knowledge or want of understanding. It may be that we fail to read the patient's mind and realize his misconceptions; again, we may forfeit the patient's confidence by giving him the impression that since his symptoms are not dependent upon organic disease his condition does not call for special attention, as there is nothing to be done. Even more culpable is the action of the weak man with whom we occasionally meet, who, posing under the guise of a "kind, attentive doctor," follows the path of least resistance, panders to his patient's whims, and unwittingly cultivates a curable neurosis as he would a hot-house plant.

In a last word I would refer to the value of isolation as an adjunct in the diagnosis and treatment of pain in which there is an obvious psychogenic element, and in the detection of malingering. Isolation has, in my opinion, fallen undeservedly into disuse. I have repeatedly demonstrated its efficacy in hospital practice in this type of case. There are three chief reasons why the "rest cure," as it was called, is nowadays but seldom employed: first, because at one time it was utilized indiscriminately in the treatment of all kinds of unsuitable cases; secondly, because it was often exploited by those who failed to appreciate its underlying principles; and thirdly, because the modern psychotherapist argues that if a patient is treated in isolation his environment is artificial, and that, although he is thereby protected during his course of treatment from counter-suggestion, he will relapse when he is once more let loose in the world. Dejerine, who did more than anyone to popularize this therapeutic measure, held a contrary view. This objection is purely hypothetical, and I know of no evidence to show that it is borne out by fact. Isolation might, I am convinced, be utilized with advantage very much more than at present is the case. It is a most useful adjunct to suggestion and persuasion in the treatment of cases of pain in which the psychogenic factor is predominant.

I have spoken of pain, but what I have said is equally applicable to many symptomatic manifestations with which we meet. Our conception of disease must not be limited by the confines of morbid anatomy, clinical pathology, and biochemistry. We are necessarily concerned with all those disturbances of function which tend to shorten life and produce incapacity, and with all the determining factors which give rise to them. What better illustration in this connexion than the symptom pain, the subject of these remarks?

PERFORATIVE DIVERTICULITIS OF THE COLON.

SOME PROBLEMS DURING THE TREATMENT OF A FATAL CASE.

BY

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DUBLIN.

PERFORATION of the pelvic colon into the free peritoneal cavity in the case of an apparently healthy adult is sufficiently uncommon to justify, I think, this short communication.

Discussions on the prediverticular state, the comparatively common condition of diverticulosis, with such sequelae as diverticulitis, abscess and fistula, obstruction, and carcinoma, have received considerable attention in recent surgical literature (Spriggs, Mummery, Mayo, etc.). The case under review is in a different category.

History.

On April 27th last an apparently healthy man, aged 44 years, took a dose of salts in the morning, before breakfast. He had felt vague pain and discomfort in his abdomen for some days previously. Within an hour of taking the salts his bowels acted twice. He was seized with a sudden excruciating pain in the left iliac fossa after the second motion. He could put his finger on the exact spot. He said he felt as if he had been shot. He lay down with his legs drawn up, applied hot-water bottles to his abdomen, and drank some brandy, which was at once vomited. He was seen within an hour, and was then in a condition similar to an early case of perforated duodenal or gastric ulcer, except that all the local signs and symptoms were confined to the left iliac fossa. The pulse was slow, the temperature normal. There was fullness and rigidity of the lower abdomen, much more marked on the left side. There was nothing to be felt per rectum. The upper abdomen was soft, and high abdominal respirations were still present.

Diagnosis.

The diagnosis presented little difficulty. No left-sided appendicitis could have developed with such dramatic suddenness; the bowels had acted well, there was no distension, the picture was one of acute peritonitis, and not that of an obstructive lesion. In an adult, vigorous and healthy an hour previously, it was difficult to think of any likely cause other than perforative diverticulitis which would produce such an acute condition in the left lower abdomen. The diagnosis was made within a few minutes of seeing the patient. It was recognized that perforation of the colon into the peritoneal cavity, such as occurred in this case, or in cases above a malignant obstruction, is followed by a peritonitis of intense virulence, and a grave prognosis was given. (The segment of colon involved is notoriously septic, and when there are no limiting adhesions the assault on the peritoneum is seldom successfully countered.)

Operation.

Within three hours of the onset of pain the abdomen was opened on the left side below the umbilicus. So-called pus, probably of the defensive and protective variety, welled up. The coils of small intestine first seen were covered already with patches of protective lymph. The pelvic colon was sought, and was found loose, boggy, and swollen. The exact site of the perforation was difficult to locate at first, but was subsequently found. The friability of the swollen loop was such that an attempt at suture of the perforation was found to be impossible.

The exceptional freedom of the coil from adhesions suggested that there never had been previous attacks of diverticulitis, and confirmed a negative history given by the patient. The perforation was dealt with by leaving the loop of colon outside the abdomen, with a subsequent Mikulicz resection in contemplation if all went well. The caecum was drained, as it was thought unlikely that faeces could pass for some considerable time through the affected loop. It was possible to introduce the caecal tube through the primary incision. The pelvis was also drained.

At the conclusion of the operation the stomach was washed out, and, notwithstanding the short space of time which had elapsed (three hours) since the perforation, it already contained ominous black material.

After-History.

There was very little drainage from the caecum. On the day after operation vomiting became frequent; repeated lavage of the stomach only gave very temporary relief. A stab wound was made in the extruded loop of bowel, through which enemata were given without effect. Vomiting continued, and it was soon obvious that