HEADACHE AS AN EARLY SYMPTOM OF NERVOUS AND MENTAL DISORDER*

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The frequency of headache as a complaint needs no emphasis, and there is an increasing recognition that it should very often be regarded as evidence of a psychiatric problem. Thus Spriggs (1935), in an analysis of 500 cases, came to the conclusion that in 203 the headache was of "functional" origin. This finding is all the more striking in that Ruthin Castle is primarily concerned with cases of organic disease. There can therefore be little doubt that the headache in a large number of these cases was thought before admission to be directly dependent upon some physical or exogenous cause, which the most thorough physical investigation failed to reveal. Indeed, it is probable that the recognition of headache as evidence of a psychiatric problem is apt only to be reached by a process of exclusion, for which purpose the maxim that it is necessary to eliminate all possible physical causes before deciding that a case is "functional" is taken as the guiding principle. There can be little doubt that a mistakenly conscientious and sometimes ruthless application of this principle can have the most unfortunate consequences; and we have all seen patients who have been subjected to elaborate investigations, treatments, and even operations which, quite apart from the consumption of time and money involved, have been as unnecessary as they have been negative, or even actively harmful, in their results.

The objection may well be raised that it is very easy to be wise after the event, and that the above criticism would be more helpful if psychiatry had really a positive contribution to make to the diagnosis of a "functional" headache, to supplement the purely negative position that this is a question of excluding all possible physical causes. I propose, therefore, to discuss what seem to be some of the *positive* points in the diagnosis of these headaches as revealed by the study of (1) the nature of the complaint, (2) the past history of the individual concerned, and (3) the other or associated symptoms that may also be found. Before attempting these tasks it may be well to touch, very briefly, upon certain general considerations, starting with some possible misconceptions.

Psychiatric and Psychogenic

It should be clear that when the claim is made that the headache of a particular patient should be regarded as evidence of a psychiatric problem, this does not necessarily imply that the origin of the headache is purely psychogenic. Headache is a symptom that may be encountered in every type of mental disorder, and not even psychiatrists, who believe some queer things, hold the view that all mental disorder is purely psychogenic in origin. There is, in fact, general agreement that mental ill-health (with or without headache as an accompanying symptom) results from the interaction of numerous factors, which can roughly be grouped as mental, physical, and constitutional; and these three factors are always and

inevitably present and operative, though they vary greatly in their practical importance from case to case.

Bearing the above considerations in mind, it is easy to understand how misleading the classical antithesis between "functional" and "organic" may become; for by "functional" is often understood "psychogenic," and by "organic" is often understood "physical" or "exogenous." Thus it is very easy for the organically minded to make the mistake of attributing a headache to some physical finding which may be coincidental, concomitant, or consecutive rather than causal, or which may only be a contributory factor in the production of that general state of mental ill-health of which the headache is a symptom; whereas for the psychologically minded it is very easy to make the mistake of attributing an organic headache to a psychogenic situation which may also be merely coincidental, and, given sufficient determination, a psychogenic situation of a sort is forthcoming in us all.

The question as to whether a headache should or should not be regarded as evidence of a psychiatric problem does not, I think, depend upon the presence or absence of physical findings, but rather upon whether the headache can be directly attributed to the operation of impersonal physical factors, or whether it is attributable to and evidence of personality problems or disorder of the personality as a whole, in the production of which physical and constitutional as well as psychological factors may well have played a more or less important contributory part.

Special Significance of our Head

It is true that we have a general and objective perception of our head as part of our body, but our head also has for us a significance such as no other part possesses. Our head is not only experienced as a physical whole but is recognized as the seat of many of our most important sense organs, upon whose functional integrity depends our mental as well as our physical orientation to the environment. Although the eyes probably hold the first place for most of us in this connexion, the general principle is particularly well illustrated in the stimulating article by Schilder (1933) upon the role of the vestibular apparatus in psychiatry and psychiatric symptomatology.

Our heads, and what they contain, are thus of very special importance to us. Moreover, the central nervous system has no sensory organ of its own, and consequently we have no direct perception of its action. It is therefore easy to understand how it comes about that our head is not only something which is physically experienced but is also something which is psychologically experienced as the place where our ego is localized. Our head accordingly comes to mean for us the most important part of being, our personality; and this psychological meaning and significance finds frequent expression in such common metaphors as "losing" or "keeping" our head.

The special significance attached to the head can also be seen in the alarm caused by a fracture of the skull or a tumour in the brain compared with the lesser reaction produced by similar events in other parts of the body. For anything that may affect the brain or head is experienced subjectively as a very special threat to the ego or personality; and, conversely, a threat to the personality or upset of the sense of well-being, however caused, is often experienced subjectively as a head discomfort or headache. This is surely the reason why it should be that head discomfort or headache is such a frequent symptom of mental ill-health; and this head experience or headache has typically a global quality of a highly

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unpleasant character that pervades the whole being and personality rather than the quality of an objective perception of definite sensory pain.

1. Nature of the Complaint

These considerations may help to explain why it can almost be said that the characteristic thing about the psychiatric headache is that it is not characteristic, except perhaps of the personality of the sufferer. Thus Wilson (1938), in his interesting study of patients with headache referred for psychotherapy, divided them into three groups—those with a sense of pressure or heaviness, those with a dull ache, and those with a sense of throbbing—and came to the conclusion that the former two varieties tended to occur most frequently in patients with a more passive type of personality, while the latter variety occurred in more active or aggressive types. Wilson also makes the important point that half his patients described their headaches in terms which were not exaggerated, and did not use such colourful phrases as “like a screw driven into my skull,” or “every hair of my head like a wire being drawn.” This is not really surprising, for not every sufferer from mental ill-health needs to find self-expression in melodramatic language.

THE QUALITY OF THE HEADACHE

I submit, therefore, that the typical characteristic of the psychiatric headache is the subjective experience of the quality of what might be called “closeness,” as opposed to “remoteness,” to the personality. The so-called functional headache has not so much, typically, the quality of a sensory perception as of an unpleasant experience with a special personal significance; whereas the typical quality of the organic headache is that of a sensory perception, about which the patient is able to assume a more or less detached attitude unless the pain is so intense (as in meningitis) as completely to pervade and overwhelm the whole being. Confirmation of this view of the difference in quality comes from the fact that patients who have suffered or who are suffering from both types of headache can usually distinguish between the two quite readily.

Localization.—I think this quality of “closeness to the personality,” or special personal significance, is independent of the generalized or localized character of the headache (and “functional” headaches may be either), although it may help to explain why so many “functional” headaches are of a relatively diffuse kind. A possible explanation of the frequent localization at the base of the forehead between the eyes may be due to the fact that, according to Claparède (1924), this is where many of us localize our ego. It would be interesting to know whether blind people do so too, and, if not, whether blind neurotics are such frequent sufferers from headaches of this type. Again, localization to the front or back of the head may correspond to the vulgar divisions of the head in the popular mind, just as the band round the head may have its origin from our habit of wearing caps or hats. The reason for these localizations may hence correspond in principle to that of the glove and stocking distribution of hysterical anaesthesia, the particular localization in all instances being dependent upon the conceptions of the part held by the individual concerned. In other cases the type of headache seems to be derived from the type of emotional experience, as in the “pressure” headache of those who feel “oppressed.”

ATTITUDE TOWARDS THE HEADACHE

This feature is really but another aspect of the quality of “closeness” to the personality or “personal signifi-

cance” which has already been stressed. Hence the headache comes to be regarded in rather a special proprietary way as *my* headache, on to which, as also on to those who try to treat it, is often projected the same or similar emotions that were aroused by the emotional situation to which it owes its birth. Thus, as we all know, the doctor often finds himself used as a convenient vent for dissatisfaction.

DISTURBANCES OF FUNCTION

The characteristic feature here of the “functional” headache is the *selective* disturbance of function that is shown. Thus the complaint may be so severe as to prevent almost any activity; but sleep and appetite may remain unimpaired, and the capacity to perform unpleasant activities is usually particularly affected. Again, the complaint may be that the pain is so intense that the patient can think of nothing else and alleges total inability to concentrate. Yet objective tests for attention and memory may reveal no impairment; while the same examination of a sufferer from an organic headache who complains similarly will usually disclose definite defects.

THE REACTIVE QUALITY

Another very important point of differentiation comes from a study of the factors that influence the headache, when it will be found that the organic headache is influenced by such physical events as changes in posture; whereas the “functional” headache is typically only much influenced by psychological events, such as the arrival of a wanted or an unwanted visitor, or the prospect of being faced by a pleasant or an unpleasant task. These variations are often very obvious to the friends or relatives, who, not unnaturally, incline to take up the attitude that the neurotic patient is putting it on.

Is the Pain Real?—Although, as I believe, the “functional” headache has not typically the quality of a sensory perception, it is nevertheless an extremely real and unpleasant experience, as I for one know. To question whether this experience is a “real pain” seems to me to be playing with words. And indeed, as Muncie (1932) has pointed out in his fascinating study of those patients who complain of a sudden sensation of snapping or cracking in the brain—what he calls “psycholeptic” attacks—certainly this experience, when vivid enough, appears often to possess a definite sensory quality as a component of what I have stressed as the far more important attribute of intense personal significance.

2. The Past History

It will readily be understood that, since psychiatry deals with the total personality, the investigation of a single symptom, such as headache, can only usefully be undertaken in the light of the total setting in which it is shown. Again, considerable intelligence and rather special powers of introspection and exposition are necessary in order that the qualities that have been put forward as characteristic of the “functional” headache can be elicited, and many of our patients are not conspicuous for these gifts. I cannot but feel that Reilly (1926) was fortunate over his patients, whom he was apparently wont to ask, “Is it a real pain or hurt?” to which the “functional” patients replied “No,” instead of “Eh, what’s that?” or getting angry, as might have been expected. It is therefore essential to inquire carefully into the past history of each patient, and to obtain, wherever possible, an independent account from a friend or relation, who should be seen separately. An independent account often gives a very different complexion to what the patient has said.

This is no place to attempt a brief guide to the taking of a psychiatric history, but the following suggestions are put forward as very rough working rules.

Patients with Good Work Records and Personalities.—In such patients there is a *prima facie* case that the headache is of organic origin unless a history of special strain immediately preceding the onset of the headache is rather readily forthcoming. The main exceptions here are provided by those who are suffering from a mental illness (with associated headache) which is of constitutional origin, such as an endogenous depression; but in such cases other symptoms of the mental illness in question will also be shown. It is, I am sure, a great mistake to suppose that the sources of strain resulting in a "functional" headache are necessarily of a remote or complex kind, or in any true sense "unconscious." It must, however, be remembered that many patients will at first deny having been worried. They often feel that they should not have been worried, and therefore mistakenly say to themselves and to others that they have not. But a little questioning may readily reveal what has happened—namely, that the patient has been well enough aware of the sources of strain, but has failed to admit them to himself or to connect them with his headache, which is thus substituted for the original source of worry, only to become an additional source of worry in itself. I believe that a large number of anxiety states with associated headache clear up quite simply when the true sequence of events is made clear.

Patients with Poor Work Records and Personalities.—There is a very considerable chance that a headache is of "functional" origin in such patients, even if only a relatively trivial source of worry is forthcoming, or even if no obvious source of worry or strain is forthcoming at all after the most careful inquiry.

3. Associated Symptoms

It is not, I think, sufficiently realized that in the diagnosis of a psychiatric condition as much, if not more, can be learned from the type of reaction that is shown as from a study of those psychopathological factors that may have helped in its production; for, as I have already said, psychiatry is not solely a problem of psychogenesis. It is, of course, obvious that it will only be possible to deal in the most cursory manner with those associated symptoms that should suggest that a headache is part of a psychiatric syndrome.

Schizophrenia.—As Brown (1936) has pointed out in his valuable study of the "bodily complaint," or hypochondriasis, the headache or head complaint of schizophrenia can be of two types: that associated with anxiety or tension and of the non-specific "functional" type that has been described, and that distinguished by its characteristic bizarre and "symbolic" features. Thus a schizophrenic patient said to me recently that he felt not "as if" one side of his head was smaller than the other, but that one side of his head *was* smaller than the other, which he attributed to having his will power drained away by mystical forces. The description of the symptoms to be looked for in the early diagnosis of schizophrenia is an extraordinarily difficult task, but one which fortunately I need not attempt, as it has recently been so admirably performed in the readily available paper of Mayer-Gross (1938).

Organic Reactions.—It is surprising with what frequency the diagnosis of an early organic type of mental

reaction, due to arteriosclerosis or other causes, is missed when the symptoms of anxiety or depression accompanying such reactions are so prominent as apparently to dominate the picture (Curran and Slater, 1935). Such patients are often thought to be suffering from a "functional" reaction in the production of which the emotional lability consequent upon organic changes frequently leads to the appearance of what is in fact a spurious psychogenesis, which further confirms this impression. Tests for memory, retention, and concentration will, of course, readily reveal the true state of affairs.

Affective Reactions.—A special difficulty arises in *depressive states*, because such patients often look physically ill, and show in addition the biological concomitants of depression, such as loss of weight, sleep, and appetite. The depressed mood may be thought to be due to the presumptive or assumed physical cause of the headache of which these patients so often complain, which hence may well become the centre of interest. Here again it is impossible to give a brief summary of the symptoms of depression, but reference may be made to the full and excellent description by Lewis (1934). A particular manifestation of affective reactions—namely, depersonalization—is, I think, another frequent stumbling-block, for such patients often complain primarily of their heads, and may not complain primarily or at all of their low spirits.

Anxiety states will, of course, often show some of the other and protean manifestations of anxiety, which cannot be gone into here, but which so often suggest the presence of physical ill-health and may thus lead to the same mistake as was mentioned in the case of depressive reactions.

The *hysterical* or purposive headache is often seen unaccompanied by other symptoms, and the main help must hence often come from points which have already been mentioned, such as the service of such headache in avoiding the fulfilment of unpleasant duties and tasks.

Some of these headaches are, however, very continuous and persistent, and particularly resistant to any form of treatment. It is interesting to speculate as to whether the intractable nature of a "functional" headache of this type as the sole complaint may not be associated with its location in the head, this being perhaps an indication of very deeply seated problems of the personality.

Physiological Component in the Production of "Functional" Headaches

The suggestion has been made more than once that "functional" headaches may, in part at least, be dependent upon the results of the physiological changes accompanying emotional disturbance, perhaps effected through the mediation of the vasomotor system. One does not, of course, doubt that structural or organic changes underlie or accompany all manifestations of function; but for myself I feel very dubious as to whether "functional" headaches are accompanied by, or have partly their origin in, physiological changes that will readily lend themselves to investigation. Thus I doubt whether these "functional" headaches are really analogous, in the mechanism of their production, to migraine, which I would regard as unquestionably a headache of organic type.

The studies of Wolff (1937) and others have, of course, demonstrated the importance of the psychobiological background and psychological factors in the production of many migrainous attacks. But these psychological factors appear to act as a trigger which fires off a train of organic

events; and for various reasons I very much doubt if the same underlying sequence can be postulated for the types of headache I have been considering here. I should much appreciate the views of others on this speculation.

Finally, I am very conscious of deficiencies, distortions, and omissions, and of the fact that this paper is full of the dogmatism and economy of truth which is perhaps inseparable from a brief presentation of such a colossal subject.

Summary

The recognition of headache as evidence of a psychiatric problem is discussed.

Positive points in the diagnosis of such headaches are put forward as a supplement to the principle of exclusion, so apt to be used alone.

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RESULTS WITH EPANUTIN IN MENTAL HOSPITAL PATIENTS

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We have recently treated twelve epileptic patients in the Glasgow Royal Mental Hospital with epanutin (sodium diphenyl hydantoinate) in place of either sodium phenobarbitone or prominal. The drug was administered according to the advice of the makers (Parke, Davis and Co.) by gradual replacement of the drug already in use, and the changes in the frequency of fits or in the mental state were studied. The following notes give the results.

Case Reports

Case 1.—A man aged 30, whose first fit occurred eight years previously, has been three years in hospital. He is well preserved intellectually, with several characteristics of the epileptic personality, especially irritability and egocentricity. Major and minor attacks occur with about equal frequency. As he has ground parole and there is amnesia for the fits it is impossible to keep accurate account of the incidence. Before epanutin was given he was receiving in alternate periods of about six weeks either 1 grain of sodium phenobarbitone or 3 grains of prominal twice daily. These changes were usually followed by a considerable reduction in the number of fits for about two weeks and an associated improvement in his mood. Epanutin, one capsule (0.1 gramme) thrice daily, was given for sixty-four days. During the first month there was a striking diminution in the fits, and he was bright and enthusiastic about the new treatment. In the following five weeks, however, he had more fits than usual, twenty being recorded. He relapsed into his former state and requested that the drug be changed; no toxic effects occurred. On resuming prominal he had only seven recorded fits in the next twenty-five days.

Case 2.—A man aged 31 had his first fit when six years old, and he has been ten years in hospital. He is a deteriorated childish personality, with minor fits almost as frequent as major fits. Usually he is maintained on 3 grains of prominal twice daily. Epanutin, one capsule thrice daily, was given for thirty-six days, and was stopped because of increased irritability and difficult behaviour, though no other toxic symptoms were observed. There was a slight increase in the number of major fits and a diminution in minor attacks.

Case 3.—A man aged 46, whose fits began twenty years ago, has been thirteen years in hospitals. His personality is very deteriorated and his behaviour noisy, aggressive, and impulsive. Before the change to epanutin he was given 3 grains of prominal twice daily. On one capsule of epanutin three times a day the fits were less frequent, but the drug was stopped because of nausea and increased irritability.

Case 4.—A man aged 40, with fits during the past twenty years following a war injury, since when he has been in hospitals, has minor fits at long intervals and an occasional major fit. His personality is deteriorated, and occasionally he has attacks of vomiting with headache, though no signs of raised intracranial pressure are present. Epanutin, one capsule thrice daily, was stopped after thirty-six days when one of his vomiting attacks became unusually severe and prolonged. The vomiting disappeared shortly after the withdrawal of the drug; it is probable that the drug was causing an exacerbation of the usual attack. No change was observed in his mental condition, nor was there any significant change in the number of fits.

Case 5.—A man aged 40 whose fits started at the age of 10, has spent the last twenty-six years in hospitals. His mental condition is very deteriorated, his speech being incoherent. The fits are all major ones, and he is usually given prominal. Epanutin, one capsule thrice daily, had to be stopped after thirty-four days on account of nausea and refusal of food. There was no change in his mental condition, and his fits were more frequent.

Case 6.—A man aged 48, whose first fit occurred when he was 22 years old, has been in hospital five years, during which time he has shown progressive deterioration, with considerable memory defect, some confusion, and occasional outbursts of irritability. He has major fits, mainly during the night, at long intervals while on prominal. Each major fit is followed by about twenty-four hours of marked confusion. Epanutin, one capsule thrice daily, had to be stopped after nineteen days because of increased confusion and ataxia, which made it difficult for him to find his way about the ward and which prevented him from being able to feed himself. He was also much more dull and unresponsive than usual. The toxic manifestations disappeared a few days after withdrawal of the drug.

Case 7.—A man aged 55, whose fits began when he was 14 years old, has been thirty-four years in hospital. He is an extremely egocentric childish personality, vain and with numerous mannerisms, who has slightly more minor than major fits. Epanutin, one capsule thrice daily, was stopped on the thirty-seventh day of its administration when he developed an erythematous rash on his hands and legs which gradually spread over his body and which was accompanied by intense itching. Later, oedema appeared and was succeeded by an exfoliative dermatitis. There was no change in his mental condition, but the fits ceased during the epanutin period. The toxic manifestations were relieved by intravenous sodium thio-sulphate.

Case 8.—A woman aged 51, with onset of fits in childhood, has been nineteen years in hospital and is now a somewhat deteriorated person with great irritability. Her attacks are usually major with occasional minor fits. Epanutin, one capsule twice daily, was given for fifteen days, when she refused the drug because of headache and nausea. There was an increased irritability, but there was no change in the incidence of the fits.

Case 9.—A woman aged 47, with a history of fits since infancy, has been twenty-eight years in hospital. She is fairly