

## THE PSYCHIATRIC ASPECT OF MINERS' NYSTAGMUS—II.\*

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IN a previous paper it was shown that miners' nystagmus is a disorder of emotional and not of organic origin. This research is part of a larger investigation, embracing various aspects of the disease and it was found that, in accordance with expectation in a psychogenic disorder, when objective methods only were used as in vitamin estimation in the blood (Campbell and Tonks, 1948), there was no significant difference between those affected by the disease and others, but that when subjective methods were used, a difference might be found, as in binocular vision (Campbell, Harrison, and Vertigen, 1948), or not, as in dark adaptation (Sharpley, 1948).

The emotional aetiology has received further confirmation from consideration of the geographical distribution. For perusal of the figures for miners' nystagmus in this country during the last few years when arrangements for compensation were stable, shows that they are capricious in distribution from pit to pit and from district to district, and inconstant in numbers from time to time. In the second report of the Medical Research Council (1923) it was found that in America where no compensation was paid there was virtually no complaint of miners' nystagmus, and that in Belgium where such compensation was not paid for more than six months, 98 per cent. of miners recovered within this period. In Germany, the cessation of payment of compensation for mild cases of miners' nystagmus was followed by a fall in the number of cases to one-tenth in five years, whereas in Great Britain the reverse process was followed by a rise in numbers. It is difficult to conceive of an organic disease which would behave in this way, but such behaviour is characteristic of emotional disorder.

### Precipitating Causes

In my previous paper (Stern, 1948) the mechanism and predisposing causes of miners' nystagmus were elicited. A mental illness, however, has a precipitating as well as a predisposing cause and the investigation to determine the former is described below.

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\* Received for publication July 18, 1949. Part I appeared in this Journal in April, 1948.

**Method.**—The material consisted of 35 certified cases of miners' nystagmus, *i.e.* men who had already ceased work because of it, had been sent to Higham Grange Centre for rehabilitation, and were seen there between November, 1947, and July, 1948. A standard psychiatric examination was carried out in each case, as in the first portion of this research, and opportunity was taken to check the results with those then obtained. At the conclusion of this examination the man's confidence had been obtained and he was asked to what he attributed his breakdown. It was found that the answers were frank and ingenuous. Each case sheet was later perused and summarized and the most likely precipitating cause having regard to the total clinical state. The results were as follows:

(a) In eighteen cases, the breakdown was attributed to the man finding the work too hard or too harassing; three examples follow:

*Case 1. A.H.D. (41).*—A conscientious man with a good deal of insight, who is prone to anxiety. When asked the cause of his breakdown his reply was so cogent and fitted in so well with my own conclusions that I give it in full. "I think the nystagmus is caused because the miner has got too much to do in the time. If you go regularly and do not take time off it gets you in the end because of the strain." When I asked him if he found it harassing, he said, "Yes, it was too harassing for me. It's day after day and you are at full stretch. It is not the same at every pit; we chaps have taken on more than we ought for the nation's sake. There is no doubt it is telling on a good many more. It is all rush in the pits to-day."

Diagnosis: Hysteria.

*Case 2. A.H. (50).*—This patient is an insignificant person, very like Low's "little man." His main trouble is an intermittent hysterical tremor, which sometimes involves the left upper limb and at other times his whole frame. He says that it came on two years after an accident, apparently a minor one, to the right knee, and admits that he never liked mining and left the coal face because he found the work too hard. He still tends his garden and wishes to become a professional gardener. I can find no physical signs in the nervous system.

Diagnosis; Hysteria.

*Case 3. W.F.R. (53).*—A rather dull man, who attributes his trouble to overwork and electric lighting, but also says that his eyesight was failing. He has, in fact, refractive errors in the eyes, and it appears that this visual failure greatly worried him. "If I'd stopped underground longer I would have run into something and got killed. I am glad I finished, though I ought to have done so years ago."

Diagnosis: Fixation Hysteria.

(b) In eleven cases anxiety seemed to be the precipitating cause of breakdown, this anxiety having been converted into hysterical symptoms to a varying degree. It was usually an anxiety resulting from the hazards of work, and of this one is given, but in one illustration the anxiety case was due to a fault in marital life.

*Case 4. J.B. (54).*—An anxious man who has always feared pit accidents so much that at the outbreak of each war he enlisted at once, preferring the risks of battle to those of the mine. He appears to have been quite unnerved by an accident which he suffered 3½ years before his breakdown.

He states that his father after 21 years in the Marines worked down the pit for six months and then "found it a mug's game, so he went on the surface."

This patient himself has worked in eleven different collieries, transferring on one occasion because he narrowly missed an accident. He says, "My job was one of the most dangerous in the pits, drawing the wastes—you're drawing 'timber' to let the rest in. They were steel trees." When asked which he preferred, he said, "Well, I prefer drawing wood, but setting steel." He said, "I want a safe job, *e.g.*, in the lamp room cleaning lamps. With a dangerous job I feel all of a shake. I'm as if I was old before my time."

He is a rather dull subject who wears dark glasses and is suspicious.

Diagnosis: Hysteria, with some anxiety.

(c) In two men, breakdown resulted primarily from the disability caused by a major psychosis.

(d) In one case the cause appeared to be dissatisfaction with the work.

(e) In one case the cause was apparently domestic upset.

(f) In one case there was no disability from miners' nystagmus or other psychoneurosis, the certification resulting from a finding in detailed examination by the doctor treating the man for a limb injury.

(g) In one patient the aetiology was uncertain.

These results may be tabulated as follows.

TABLE

Cause of breakdown with miners' nystagmus	Number	Percentage
(a) Work, too much strain ... ..	18	51
(b) Anxiety ... ..	11	31
(c) Major psychosis ... ..	2	6
(d) Dissatisfaction with employment ... ..	1	3
(e) Domestic trouble ... ..	1	3
(f) Accidental finding (no real breakdown)... ..	1	3
(g) Doubtful—possibly high dark threshold ... ..	1	3
Total ... ..	35	100

### Discussion

The commonest cause of breakdown, accounting for half the cases, is a feeling of inability to cope with the work. This occurs particularly when mental or physical powers are inadequate to the strain. It explains the shape of the histogram of ages at onset of miners' nystagmus given on p. 217 in my previous paper (Stern, 1948), in which there is a normal type of curve including the majority of cases, followed by another rise between the years 60 and 75, which appears to be caused by the waning powers of old age due to the onset of dementia or physical failure. A major psychosis with consequent dementia has a similar effect. Allied to inability to cope with the work is dissatisfaction with employment (d) which does not really merit a separate heading. Cases

2 and 3 were of mixed aetiology showing factors of those classed under (b) as well as (a).

In stating the reasons for breakdown, many of the miners showed good insight, particularly Case 1. How they may feel about their conditions of work has been well expressed by an intelligent ex-miner (Coombes, 1945). I quote his remarks although they refer more especially to pneumoconiosis:

"In his mining work he was a craftsman . . . Yet, although not more than middle-aged, he was beginning to lose weight, and he was tiring more easily. The mountain was beginning to conquer him. I wondered if there was something about that realization which was influencing his desire for knowledge.

"I have noticed it so often in the men who are beginning to age. They may have been twenty-five or thirty years underground, and if they had been in some jobs would have qualified for a pension. In the mines they feel their strength going and the limbs stiffening. The fear creeps into their consciences that their best days are gone; that even all their experience will not counterbalance their weakening body. They guess their wage packet will get steadily smaller, and they have no reserves put away. It is a grieving realization, and must cause a deal of the bitterness which sours mining life nowadays. No hope for the future, no security for the family. The only prospect, when he cannot answer the call for work, is the miner's pension—parish relief.

"When their working days are past, what can the majority of them do? Most had no interest outside their work; when that fails them they are adrift from all their connections. They know not what to do with their hands or their minds. The pit wheels revolve, the dust cloud arises, the loaded trucks are taken away and they have had no share in its doing. Nor can they do any other work. I feel that every man should have some training in a second occupation that he could take to when his greatest strength fails. I know that few light jobs will ever be available at collieries, but would it not be possible to fit them for a factory job after, say, twenty years in a mine? That is a long enough slice from a man's lifetime to be spent away from the sun and daylight, in frequent danger and breathing forced air. Anyway, they should never be allowed to feel unwanted."

"Nor does the urgent, rushing pace of mining work help much to accommodate a man to the more leisurely pace of surface work."

Many of the miners investigated here expressed similar feelings though they were less articulate. They feel that too much is expected of them in the pit — "Doth God exact day-labour, light deny'd?" they fondly ask.

That anxiety (b) is a precipitating cause of breakdown in one-third of the cases is not surprising in such a dangerous occupation, and there was clear evidence that in most cases this anxiety was related to the hazards of underground work. Its fixation on the eyes is to be expected, because they are the most important organs to the miner and his *locus minoris resistentiae*. This anxiety is converted into physical hysterical symptoms which have a symbolic meaning—the eyes, and sometimes other parts, tremble with fright, the blepharospasm and blinking show fear of injury and are also related to the need for frequent blinking in a dusty atmosphere (Lawson, 1948). The photophobia shows failure to

adapt to changing conditions of illumination, and the headache and giddiness symbolize worry and bewilderment.

The other precipitating causes are of little importance, but a case shows how unwise it is to communicate an incidental finding to the patient.

The peculiar character of the miner merits consideration. He is naturally a little suspicious, and although the men were sent to a rehabilitation unit it was felt that individual psychotherapy would be difficult and of doubtful value. It was found that their mere coming to the unit caused some emotional trauma, for many had never been away from home in their lives, and one left after only one day, stating that he was too homesick to remain. Miners generally are childish and dependent, and of the total of 85 married miners interviewed in the course of this investigation, excluding widowers and those married more than once, 26 (31 per cent.) had wives older than themselves, suggesting that many of them had sought a mother substitute rather than a partner. It is unnecessary to enlarge upon the suggestibility of miners to anyone conversant with the history of the industry.

This survey is incomplete without consideration of the deep psychological mechanisms involved, though in the absence of full analysis of individual patients, conclusions must be tentative.

Miners' nystagmus mainly involves the eyes, which play such an important part for the miner, both consciously and symbolically in his unconscious mind. So it may be suspected that the miners' potency phantasies are concerned. Such phantasies are built up in the infant during habit-training (Freud, 1936), for he finds that he can win approval or disapproval by evacuating or withholding his faeces at the proper time, and can thus control the attitude of the mother or nurse.

In keeping with the idea that miners' nystagmus involves potency phantasies, we see that half of the cases above have finally broken down when they felt that the work was such a strain that they could no longer cope with it. We find too that the miner can win approval or disapproval from the community as a whole—which occupies a similar position to that of the parent or nurse during infancy—by delivering or withholding coal from the bowels of the earth. A journey in a mine in the long subterranean, intestine-like galleries, makes this latter analogy particularly appropriate. It is significant too that most mining disputes arise over the question of production or wages; money being a well-known faecal symbol, familiarly expressed as "filthy lucre", or even "dirty money".

Putting all these observations together it is concluded that the collier is unconsciously preoccupied with power phantasies; and

breakdown is to be expected when these show signs of failing to be met, so that he feels impotent at his work. This postulate also explains the miner's sense of hostility to the community and the nature and frequency of colliery disputes. Thus a study of miners' nystagmus, a disease of darkness, has paradoxically, shed light on the very nature of the miner and his industrial relations.

### Conclusions

(1) The precipitating cause of breakdown in miners' nystagmus is most often a feeling of inability to cope with the work, the deep psychological meaning of which is discussed, and next most often anxiety connected with the danger of the occupation.

(2) The conclusions of the previous paper are confirmed, as are its recommendations, and in particular, for the prevention of further cases of this intractable disorder, recommendation No. 8, that optimum hours of work in the mines should be worked out scientifically, and that this matter should be removed from the sphere of politics.

It is again a pleasure to thank Dr. Campbell for giving me facilities for this investigation. The expenses were defrayed by a grant from the British-Colliery Owners' Research Association, now merged in the National Coal Board.

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