Emotional Problems in Childhood and Adolescence

The Difficult Epileptic Child

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"It ought to be generally known" wrote the author of *The Sacred Disease* "that the source of our pleasure, merriment, laughter and amusement, as of our grief, pain, anxiety and tears, is none other than the brain."¹ A recent Government publication, *People with Epilepsy*,² estimates that there are 60,000 school children in the country who are subject to epilepsy. When one considers the multiple handicaps that can afflict people with seizures the surprising thing is how many of these children are cared for with relative ease. Each of them by definition has a brain prone to sudden excessive discharge in its grey matter. "So long as the brain is still", to return to Hippocrates, "a man is in his right mind."

In reviewing the difficulties that children may both suffer and create it is essential to stress how often in practice they manage to adapt themselves, their families, and their school and social life to at least relative normality.

Some Aetiological Factors

Seizures occurring in the neonatal period may be simply symptoms of a transient metabolic upset, but they may be ominous. The physician must be alert for the possibility of severe developmental handicap. Similarly in the great majority of cases the onset of massive spasms means that one must prepare oneself to deal with an infant who will suffer severe mental handicap, organically based, and often accompanied by psychotic or hyperkinetic patterns of behaviour. It is important that expert advice is sought as promptly as possible, for even when the organic damage cannot be reversed or ameliorated the parents and the brothers and sisters will be faced with major and evolving emotional and practical problems.

Febrile convulsions are the commonest, and, as William Lennox said "the purest form of epilepsy". They are usually benign, but this is not always true. When febrile seizures are protracted they sometimes damage the inferior and mesial part of one temporal lobe. This is followed by sclerosis. The territories adjacent to the lesion of mesial temporal sclerosis may then generate a wide variety of epileptic behaviours usually grouped under the head of temporal lobe epilepsy.

Psychological Effects of Convulsions on the Families

When parents first see their infant have a fit their immediate reaction is often "I thought he was dead." The severity of the

shock to parents can set up long-lasting reverberations in their relationships not only to the child himself but also to those who care for him. Even when recovery occurs within a few minutes, the mother and father are still left with the abiding fear that at any moment without warning their child could be lost to them. This has immediate practical implications for the doctor. Even though he thinks that the seizure will be benign and will probably be over by the time he reaches the house, he still has a most important task to do. If he goes promptly, and at this moment of crisis deals not only with the child but with the family as a whole, he can help them in a way which is not possible at a distance.

If when the crisis is over the child is left with a chronic handicap, either in the form of neurological damage such as hemiplegia or in the form of recurrent seizures, then the doctor will have to cope not only with the handicap itself and the person who suffers it but also with the changes which will occur in the family and in the ambient society. Chronic seizure disorder evokes a change in parental attitudes. They tend to move towards an extreme, either of rejection or of over-protection, the latter being more common in British families. The child is never crossed; he is carefully protected from stress; the extent of his handicap is denied—he is in fact treated as though he were permanently a baby. Other parents react with rejection because the child has a disorder which makes him untrustworthy in the sense that cataclysmic breakdowns in his behaviour may happen without warning. His whole existence as a person may be denied. Thus a boy of 7½ years with temporal lobe epilepsy was locked up in a ward with adult chronic psychotic patients; transfer to a suitable hospital ended his disorder of behaviour within 24 hours without change of medication. It was found that he suffered a vivid and frightening aura, this put him in fear for his reason and his life. Autochthonous dread led to panic. Positive feed-back spread first through his family, next through his school, and then to his medical attendants. This illustrates the infective nature of the breakdowns which can have their roots in the cataclysmic nature of the seizure itself. In this case the reverse also held. Placed in a calm and orderly environment and treated with intensive psychotherapy, first the child, then the family, next the school, and finally the local medical services regained their calm. Recovery was lasting.

Some Specific Syndromes

The way in which a child reacts to the handicap of the seizure disorder varies considerably. This will turn on the nature of the seizure disorder, the premorbid personality of the child, the family psychopathology, and the extent to which the child's handicap is relieved or enhanced by the medical treatment he is given.

Children with seizure disorders arising from temporal lobes typically are handicapped by overactivity and by cataclysmic rage. At one time the term hyperkinetic was used to describe a

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quite specific syndrome occurring in about 8% of children with seizures. The incidence is now considerably less than when first described. The term has subsequently been very widely and loosely applied, and in America, especially, liberal use of amphetamine is widely recommended. This situation is deplorable and ought to be resisted. Amphetamine is a dangerous drug and should be used only under strictly controlled conditions after specialist investigation. When a child with seizures becomes overactive there are many diagnostic possibilities, each of which must be weighed up. The overactivity may be generated by anxiety, which in turn is set going by a frightening aura. When epilepsy has induced anxiety in the parents this in turn may generate anxious restlessness in the child.

CATAclysmic RAGE

Cataclysmic rage occurs in about one-third of the children with temporal lobe epilepsy. It is particularly common when the seizure disorder is due to massive cerebral insult occurring in the first few years of life. It is best regarded as a form of "fail-safe" device—that is to say, the rage occurs when the child has been overloaded with emotional stimuli of one kind and another. An example would be confinement in an overcrowded room or a school or hospital with no escape route from the ambient disturbances. As with the hyperkinetic syndrome we should always remember the dangers of phenobarbitone and particularly one should recall that primidone is largely metabolized into phenobarbitone. This is emphasized because a common mistake is to substitute the former for the latter.

DISTRACTIBILITY WITH PERSEVERATION

Some children with seizure disorders are said to show "distractibility with perseveration". At first reading this concept sounds somewhat paradoxical. In fact it is readily understood pictorially (see Fig.). A sequence of behaviour may be regarded as a number of steps representing successive stages aimed at a certain goal. The whole sequence may take longer than the

child's limited and fixed attention span; thus before the goal is reached the attention span terminates and the child switches to a distraction in the environment. Having attended to the distraction he returns to the former sequence and again distracts to another object before attaining the goal. Thus a piece of his behaviour is repeated—perseveration—while, since the sequence is never terminated, he also shows distractibility. The education and training of such children presents a major and unsolved difficulty when the behaviour is intense.

LEARNING DIFFICULTIES

Different workers have arrived at different opinions about the intelligence of epileptics. Their findings are undoubtedly influenced by the differences in the samples studied. Even within a group of children suffering from the same type of epilepsy there can be wide variations. For example, in a series of children with temporal lobe epilepsy subdivided into those who developed temporal lobe epilepsy after status epilepticus in early infancy or who had sustained early trauma, the mean I.Q. was more than 20 points lower than in the third group where the onset was later and where no such aetiological factors were found.

As a general rule the earlier the onset of epilepsy the greater will be the retardation. If there is evidence of gross neuronal loss plus epilepsy then again there is likely to be considerable mental deficit. Nevertheless, epilepsy may be compatible with high intellectual functioning. Many epileptic children have outstanding drive and single-mindedness and may run into emotional and behavioural difficulties in attempts to overachieve. The frequency of seizures may also increase, but diminish again when the child is removed from the overdriving learning situation.

The more common problem, however, is of the epileptic child who is under achieving at school. Many factors may underlie the child's inability to learn. From the behavioural point of view the child who is unstable in mood, anxious, restless, or hyperkinetic will obviously have difficulties in learning. The child who suffers from distractibility with perseveration as outlined above will not be able to attend to any stimulus long enough to absorb and retain new information.

The second problem is that in children with focal cerebral damage global intelligence quotients do not reflect learning capacity in the same way as they do in children without cerebral lesions. For example, a child who has a lesion in the hemisphere ipsilateral to the preferred hand may have visual motor perceptual difficulties and general reduction in the global I.Q. On the other hand, if the contralateral hemisphere is affected then the global impairment is less and the greatest impairment is in the language field. Clinically children with delayed speech show early reading and spelling difficulties. In some samples of epileptics about one-third show language delay.

FLUCTUATIONS IN I.Q.

Epileptic children may show appreciable fluctuations in I.Q., both up and down. Similarly their capacity to learn can fluctuate. There is no simple explanation for these changes: sometimes they may coincide with an increase in the frequency of seizures, sometimes the opposite; sometimes with an increase or alteration in the drugs prescribed, sometimes not.

A child in minor status epilepticus, which can go on for weeks, will obviously show a dropping off in functioning. But the latter may also be an indication of a degenerative brain disorder or of a brain tumour.

A third possible factor is that learning may be disrupted by bioelectric paroxysms. The child who has frequent minor seizures will have frequent interruption of intake of information and amnesic spells. There is some evidence too that subclinical spike and wave without overt seizures may have the same effect.

PSYCHOSIS AND NEUROSIS

The child may have ictal experiences which resemble adult psychotic states—for example, hallucinations, depersonalization, derealization, delusions, autochthonous dread, confused speech, or thought blocking. But a psychotic breakdown in epileptic childhood before puberty is rare. Children with epilepsy are more prone to neurotic or conduct disorders, but phenomenologically these disorders are no different from children without epilepsy exhibiting the same symptoms.

Conclusion

Children with seizures may both show and create difficulties at all levels. Careful and repeated assessments of the child, his family, and his school are called for if secondary and tertiary handicaps are to be reduced. Following the Reid Report *People with Epilepsy* special centres are being established at which such assessments will be possible.

References

- ¹Hippocrates, *The Sacred Disease*, in his *Works* ed. by W. H. S. Jones, E. T. Withington, London, Heinemann, 1923.
- ²Department of Health and Social Security, *People with Epilepsy*. London, H.M.S.O., 1969.

Second Opinion, Please

Lumbar Disc Problems

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J.T.C.: Jim, I have been looking through our visiting lists and surgery attendances and find that we spend a lot of time dealing with lumbar disc lesions. These can be difficult problems in general practice because the incapacity may continue for many weeks and a considerable amount of time may be lost from work. Relapses are not uncommon and residual symptoms seem to be the rule. If you take Mr. A. B., a disc problem that you sorted out for me a couple of years ago, he illustrates quite a few of my problems. Briefly, he is a 40-year-old hard-working farm labourer. He is what I would term an "honest sort of chap" and, incidentally, is a well-controlled diabetic. I first saw him about three months before asking you to do a domiciliary consultation. He came to the surgery one night complaining of gradual onset of cramp-like pain in the posterior part of his left thigh and anterolateral aspect of the leg below the knee. There was no definite history of injury and he said that the pain was worse on sitting and on activity. His only other complaint was of hypersensitivity of the dorsum of his left foot. To me, this story strongly pointed towards a lumbar disc protrusion, though I would have expected him to have had some back pain as well.

J.P.G.: I agree that this history suggests a diagnosis of a lumbar disc protrusion. The distribution of the pain indicates that there was an irritative lesion of the fifth lumbar nerve root, and at this age a disc protrusion is by far the commonest cause. There is often no history of injury, and back pain is not always present.

J.T.C.: When I examined him the most obvious abnormality was that he stood with scoliosis of his lumbar spine convex to the right. Movements of the lumbar spine were grossly limited. Straight leg raising was restricted on the left to 40° and was normal on the right. On neurological examination he had some weakness of the left toe extensors, particularly of the extensor hallucis longus. There was some blunting of cutaneous sensation of the dorsum of his left foot and the reflexes in his legs were normal.

J.P.G.: These physical findings indicate that this patient had a fairly severe lumbar disc protrusion. The "scoliosis" which is sometimes found is really a lateral tilt of the lumbar spine, which tends to relieve the pressure of the protruding disc on the affected nerve root. The tilt may be towards or away from the side of the pain depending on the relationship of the protrusion to the nerve root. The limitation of straight leg raising is due to hamstring spasm, and in general terms is proportional to the severity of the nerve root irritation. Most lumbar disc protrusions are at the L4-L5 or L5-S1 levels and on the basis of the neurological examination it seems likely that this patient had a lesion of the L4-L5 disc.

J.T.C.: I requested an x-ray of his lumbosacral spine and did an E.S.R. I told him to go home to bed and gave him Distalgesc tablets to be taken two three times daily, and a couple of Soneryl tablets at night. However, he insisted on keeping at work and pointed out that he considered bed to be an aggravating factor. I find that it is common for these people to refuse to go to bed, which makes me wonder if bed rest at an early stage is ever worthwhile. As he would not take my original advice, I told him to put boards under his mattress, to sit with his lumbar region supported, and to avoid flexion of the spine when lifting. Would you have considered manipulating his spine or giving him a spinal corset, particularly in view of his insistence on keeping at work?

Treatment

J.P.G.: A patient with a disc protrusion of this severity is best treated by bed rest, possibly combined with traction. As you say, patients are unwilling to go to bed at first, and accept this advice only when symptoms become very severe. A plaster jacket, or a corset, is of benefit in patients who remain ambulant, and is one method of resting the lumbar spine. I would not advise a manipulation in a patient with an acute lumbar disc protrusion, as there is a risk of exacerbating the condition.

J.T.C.: Incidentally, the E.S.R. was normal and x-ray of his lumbosacral spine did not reveal any bony abnormality. Following this first visit he kept at work for the next ten weeks—although I am sure that he was in a lot of pain and was sleeping badly. Then one evening I was asked to visit his house as his pain was much worse. There was tension in the household and

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