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Hypomania Following Complex Partial Seizures

A Report of Three Cases

Depressive disorders are commonly found among selected groups of patients with epilepsy, but hypomania is seldom seen. Three cases of hypomania seen at a unit specialising in epilepsy are presented. The cases are of interest because of their association with recent seizures, and location in the non-dominant temporal lobe.

Pond (1957) proposed that psychiatric disorders occurring in epilepsy could be related in time to the seizure (peri-ictal) or unrelated in time (inter-ictal). Inter-ictal psychosis occurring in clear consciousness could be further classified as schizophrenia-like, schizoaffective or affective in nature. Controversy has long existed over whether there is a higher prevalence of inter-ictal psychiatric illness among people with epilepsy. Many existing studies have failed to include control groups, or represent highly selected patient groups. Whitman (1982), reviewing 2796 patients, found no evidence overall for an increase in psychopathology in people with epilepsy. Robertson & Trimble (1983), reviewing the literature, concluded that there was a higher prevalence of depressive illness among certain populations of people with epilepsy. All workers, however, are agreed that hypomania is rare or non-existent in epilepsy (Dongier, 1959; Currie *et al*, 1971; Fenton, 1983; Toone *et al*, 1982; Wolf, 1982; Robertson & Trimble, 1983). A literature search failed to reveal a single case report of hypomania and epilepsy in the English-language press. For this reason three cases fulfilling DSM-III and RDC diagnostic criteria for hypomania are presented below.

Case 1

A 54-year-old, divorced, unemployed man was admitted to hospital after a series of complex partial seizures. An operation at the age of 12 to remove a right-sided parietal neuroblastoma resulted in a mild left-sided hemiparesis and simple motor seizures well controlled on medication (phenytoin). Prior to admission he had discontinued treatment and the seizures had recurred, although they were now complex parietal seizures with non-verbal auditory hallucinations and a brief lapse of consciousness. They became frequent and he developed serial attacks necessitating admission to hospital, where treatment with phenytoin was re-instituted.

On recovery in hospital he was initially anxious and fearful but then became elated in mood. He was overactive and disinhibited in behaviour, his speech was rapid and his thoughts subjectively raced. He neglected himself, was unable to sleep and experienced religious delusions such as having special powers given to him directly by God. Despite this there was no evidence of a diminished level of consciousness and on recovery his recall of past events was good. The psychotic episode lasted ten days and was treated with haloperidol. He has remained free of attacks and psychosis for 18 months.

Physical investigations were essentially normal, apart from evidence of his previous brain surgery. An EEG carried out during the psychotic episode revealed, "A low frequency disturbance, maximal in the right temporal region in keeping with previous EEG recordings and not consistent with complex partial status".

Case 2

A 46-year-old single schoolteacher had a long history of complex partial seizures consisting of momentary abrogations of consciousness. He has experienced four short-lived psychotic episodes, the most recent of which led to his admission to a psychiatric hospital. The most recent attack was typical of them all. After a series of complex partial seizures precipitated by withdrawal from medication (phenytoin), he became puzzled and apprehensive. He felt that something strange was going on around him, but he was not sure exactly what this was. While having his eyes tested he interpreted a cross-shaped light shone in his eye as being the "cross of Jesus". He became elated in mood, was overactive and believed that he had been reborn as Jesus. He was unable to sleep, and was eventually brought to hospital when he walked out in the road one night looking for his disciples and loudly singing hymns.

On admission he was euphoric in mood. His speech was rapid. He was restless, and shouted and sang throughout the interview. He was preoccupied with religious matters. There was no evidence of a diminished level of consciousness, and neurological examination was normal. An EEG at the time of admission showed evidence of a right anterior temporal lobe epileptic focus but nothing to suggest complex partial status. A CAT scan was normal. He made a rapid recovery when treated with haloperidol and is now being prescribed carbamazepine. Following achievement of a satisfactory blood level of this drug, there have been no further seizures.

Case 3

This 45-year-old married man has a 28-year history of treatment-resistant complex partial seizures. EEG recordings in the past pointed to a right temporal lobe focus. Despite right temporal lobectomy he has continued to have seizures and seems best controlled with a mixture of

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phenytoin and carbamazepine. On four occasions in the past five years, following an escalation in seizure frequency he has become irritable and elated in mood, his speech rapid and his behaviour restless and extremely aggressive, necessitating admission to hospital on two occasions. He experiences auditory and visual hallucinations of God talking to him and Jesus descending in a golden chariot. Throughout these episodes, which last approximately a week, he is alert and fully conscious and his EEG recordings are not suggestive of complex partial status. During these episodes he has required treatment with haloperidol, to which he makes a rapid response. Better seizure control has been achieved recently and, perhaps as a result of this, he has not suffered a further psychotic episode, although he has recently had a brief intense depressive episode which cleared spontaneously.

Discussion

Medical historians have recognised from earliest times an association between affective disorder and epilepsy. Certainly among selected groups of patients with epilepsy attending specialist clinics, depressive symptoms have been shown to be common (Currie *et al*, 1971; Trimble & Perez, 1980). Hypomania, however, is seldom reported as being a consequence of epilepsy and little information is available. Dongier (1959) presented findings of a multi-centre study and found 25 cases out of a population of 536 patients with epilepsy (4.7%) who had what are described as "maniacal episodes". The absence of clear diagnostic criteria make these findings hard to interpret. The temporal relationship to seizures is nowhere made explicit. Betts (1974), in a study of 72 patients with epilepsy in psychiatric hospitals, found a high prevalence of depression (31%) but no cases of hypomania.

Similar findings have been reported by Toone *et al* (1982), who in a population of 69 patients with a combined diagnosis of epilepsy and psychosis has found only three with "bipolar features". No individual case details are presented and the relationship between onset of psychosis and epilepsy is not commented on. Robertson & Trimble (1983) reported two cases of manic–depressive psychosis in a study of affective disorders but did not provide further case details.

The three cases presented above were selected from several hundred referrals to a clinic specialising in difficult-to-manage epilepsy, and cannot be regarded as typical. They have been presented, however, to demonstrate that hypomania can exist in the presence of epilepsy.

All three cases described above fulfil DSM–III and RDC criteria for hypomania. They are strikingly similar in that they all represent middle-aged men with right-sided temporal lobe epilepsy who became hypomanic following an increase in complex partial seizures (in two patients on several occasions) and displayed affect-laden hallucinations and delusions with a predominantly religious theme. Symptoms were short-lived (1–2 weeks) and occurred in clear consciousness, with no EEG evidence of status. Once seizures were well controlled, the patients tend to remain asymptomatic.

These cases are of interest because of their association with recent seizures and the location of the epileptic foci in the right temporal lobe, although it would be unwise to read too much into the three case reports. Betts (1974) noted a reduction in fit frequency by 50% in 9 out of 15 depressed epileptics admitted to hospital, and Flor-Henry (1969) and Standage & Fenton (1975) have shown similar findings. The increase in seizure frequency prior to the onset of hypomania noted in our cases might be expected if hypomania were naively regarded as the biological opposite of depression.

In the classification referred to earlier in the paper, mood changes can occur peri-ictally, but are then said to be short-lived and associated with a lowered level of consciousness and diffuse EEG slowing. Levin (1952), in an early paper, reports on 52 cases of psychosis occurring within 24 hours of a major seizure. Half the patients reviewed were said to be either aggressive or excited in manner, and a quarter experienced auditory hallucinations or expressed paranoid delusions, but a marked degree of confusion was absent.

Mood disorders can also be classified as occurring inter-ictally in a setting of clear consciousness and being similar in nature to functional psychiatric disorders. Our cases would be hard to place in this classification as the onset of the disorder was closely associated in time with an increase in seizure frequency. The classification proposed by Bruens (1974), that is

1. psychosis with a disturbance of consciousness
2. psychosis with normal consciousness
   (a) short-lived (less than three weeks)
   (b) long-lasting

would seem in these particular cases to be of more use, and our patients fall into category 2(a).

The authors would be interested in hearing from doctors with similar patients.

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