Matters arising

A Creutzfeldt-Jakob like syndrome due to lithium toxicity.

Sir: Smith and Kocen\(^1\) recently reported two patients with a Creutzfeldt-Jakob like syndrome due to lithium toxicity. We report two additional subjects with a lithium induced organic brain syndrome with myoclonus and pseudoperiodic EEG discharges. In one case a confusional state appeared during maintenance therapy (lithium carbonate, 450 mg daily with serum level always in the normal range before hospitalisation), while in the other case organic brain syndrome with choreo-athetoid movements and action myoclonus was associated with elevated serum levels (2.6 mEq/l). In both cases a complete clinical and EEG recovery occurred. Clinical and EEG features are summarized in the table.

Although there are several reports regarding lithium toxicity on the central and peripheral nervous system,\(^2,3\) to our knowledge action myoclonus\(^4\) and periodic-like complexes have rarely been described.\(^3\)

Our cases confirm that a Creutzfeldt-Jakob like syndrome may be due to lithium toxicity. In psychiatric patients toxic conditions such as barbiturate intoxication, withdrawal states and psychotropic drugs overdosage\(^5\) must be always considered in the pathogenesis of periodic EEG discharges even when clinical features and EEG suggest a diagnosis of Creutzfeldt-Jakob disease.

Our data clearly confirm the diagnostic value of serial EEG records in the differential diagnosis between toxic encephalopathy and Creutzfeldt-Jakob disease.\(^6,7\)

| Table Features of the two cases |
|-----------------|--|
| **Case 1** | **Case 2** |
| Age (yr) | 59 | 56 |
| Sex | F | M |
| Diagnosis | Manic-depressive psychosis | Depressive psychosis |
| Lithium therapy: dosage | 900 mg/daily | 450 mg/daily |
| duration | 3 years | 10 years |
| blood level | 2-6 mmol/l | na* |
| Neurological examination | Confusional state, myoclonus of face, arms and legs, athetoid movements | Psychogenic syndrome |
| EEG | Periodic-like complexes at 0.5-1.5 Hz | Periodic-like complexes at 1-2 Hz |
| Clinical and EEG normalisation in 4 weeks | Clinical and EEG normalisation in 12 weeks |

*na*: lithium was discontinued a few days before hospitalisation.

References


Transient feelings of compulsion caused by hemispheric lesions in three cases

Sir: The description by Ward\(^1\) of transient feelings of compulsion caused by hemispheric (frontal) lesion is reminiscent, as emphasised by the author, of the old and important problem of the organic basis of a trouble generally considered as purely psychologic in nature.

Encephalitic lethargica yielded number of observations with obsessive-compulsive trouble (OCT), suggesting an implication of the basal ganglia which are predominantly altered in this disease. OCT in Gilles de la Tourette disease is similarly suggestive.

Recently, in patients who had suffered from an anoxic encephalopathy, and who developed OCT, we discovered bilateral basal ganglia lesions. No other brain damage was shown by CT and MRI.\(^2,4\) Two other cases have been also reported.\(^5\)

Another point of interest is that this trouble was included in a general neuropyschological pattern suggesting the functional implication of frontal lobes.\(^6\)

This leads back to the conclusion of Ward, suggesting a role of the frontal lobe disturbances in the occurrence of OCT.

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References

Transient feelings of compulsion caused by hemispheric lesions in three cases.

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*J Neurol Neurosurg Psychiatry* 1989 52: 423
doi: 10.1136/jnnp.52.3.423-a

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