

Neuroleptic malignant syndrome – a clinical conundrum

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Aims

To study the clinical conundrum of neuroleptic malignant syndrome (NMS) in schizophrenia and affective disorders when studied separately.

Methods

Twenty people with schizophrenia and 30 patients with affective disorder that developed NMS were studied between 1990 and 2001 prospectively. Modified criteria of Keck was used for the diagnosis of NMS. Only patients who developed fever, altered sensorium, extrapyramidal and autonomic symptoms are included. Standard statistical data analysis was performed.

Results

Mean age onset in schizophrenia was 32 years (18–58 years) and in affective disorders was 43 years (15–73 years). NMS developed within 9 hours of starting therapy and lasted for a mean duration of 23 days. In the affective disorder group, NMS developed over a period of 17 hours and lasted for a mean duration of 11 days. Fever occurred in all the cases and earlier in schizophrenia (11.9 hours), compared with affective disorders (16.8 hours). The altered sensorium occurred within 9.6 hours in schizophrenia and 25.69 hours in affective disorder. The rigidity occurred in 38.8 hours in schizophrenia and 84.9 hours in affective disorder. Rigidity followed fever and altered sensorium in both the conditions. Autonomic symptoms occurred within 48 hours in schizophrenia and 107 hours in affective disorder.

The correlation analysis showed correlation between NMS onset with fever and altered sensorium. Cluster analysis indicated that autonomic and extrapyramidal symptoms cause for the evolution of NMS. The factor analysis of the parameter responsible for NMS in people with schizophrenia and extrapyramidal symptoms 0.913, autonomic symptoms 0.858, fever 0.779, altered sensorium 0.497, whereas in affective disorders extrapyramidal symptoms 0.931, autonomic symptoms 0.955, fever 0.200, altered sensorium 0.181 – AVS–CUV Criterion.¹ Four patients died in the schizophrenic patient group. Discriminate analysis showed autonomic symptoms (0.9), extrapyramidal symptoms (0.7), altered sensorium (0.6) and fever (0.3). The misclassification rates in the case of schizophrenia are 1.5% and affective disorder is 7%. Re-exposure of neuroleptics

were started in 10 patients after 12 weeks. During 6-month follow-up, they did not develop NMS.

Conclusion

NMS developed earlier and took a longer time to resolve in patients with schizophrenia compared with those with affective disorders. Mortality occurred only in patients with schizophrenia. New AVS–CUV criteria has been added to the word literature. ■

Conflict of interest statement

There is no conflict of interest.

Reference

- 1 Srinivasan AV *et al*, presented at XXIV The International College of Neuropsychopharmacology (CINP) Congress. Paris: 20–24 June 2004.

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