

SEVEN CASES OF NEUROLEPTIC MALIGNANT SYNDROME

Pages with reference to book, From 216 To 216

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Neuroleptic Malignant Syndrome (NMS) was first described in America¹ and later in France². Since then sporadic reports have appeared from different parts of the world. It is an uncommon but potentially fatal idiosyncratic reaction to the neuroleptics, characterized by muscular rigidity, fever, autonomic dysfunction and altered state of consciousness³ (Table).

TABLE. Criteria for Guidance in the diagnosis of Neuroleptic Malignant Syndrome.

Major Manifestations	Minor Manifestations
Fever	Tachycardia
Rigidity	Abnormal blood pressure
Elevated Creatine Phosphokinase Level	Tachypnoea
	Altered consciousness
	Diaphoresis
	Leukocytosis

From Levenson, 1985.

The pathogenesis of NMS is still debated though evidence in favour of central dopaminergic blockade is more convincing and against peripheral toxic effect on skeletal muscles. Very few cases have been reported from tropical and sub tropical countries. Seven cases of NMS admitted in the Department of Neuropsychiatry, Jinnah Postgraduate Medical Centre, Karachi are being reported. All were acutely disturbed psychotics seen during hot and humid months of May to October during 1986.

PATIENTS, METHODS AND RESULTS

The seven cases included four males and three females. Their ages ranged from 16 to 40 years. One had psychotic episode in the past and one was mentally retarded. All were admitted with history of acute psychotic illness ranging from 2 days to 2 weeks (except for one case who was treated elsewhere for 3 months and transferred to our ward). Two cases had received antipsychotic medications in the past. Hyper-activity and irritability were common symptoms in all of them. The environmental temperature and humidity was recorded but not found to correlate positively. Temperature, diaphoresis and rigidity appeared within 4 days and altered state of consciousness within a week in five cases. In two cases exact

appearance of symptoms could not be ascertained. The drugs producing NMS in these cases were Haloperidol in five, Fluphenazine and Flupenthexol in one case each. All drugs were given through intramuscular route. Signs and symptoms reappeared in two cases when they were rechallenged with Injection Haloperidol and Syrup Thioridazine respectively. Clinical and laboratory findings showed fever, rigidity, tremor, tachycardia and altered state of consciousness in all, diaphoresis and abnormal blood pressure in five, and elevated CPK in four out of six cases. Early recognition of syndrome and discontinuation of neuroleptics was the major step in the treatment. Bromocriptine was used on the basis of theory that neuroleptic malignant syndrome is a consequence of CNS dopaminergic blockade⁴⁻⁶.

DISCUSSION

NMS being a potentially fatal condition has led us to formulate a plan of observation in all patients given neuroleptics specially in hyperactive patients during summer. Special care should be taken when administering haloperidol and long acting phenothiazine. In most of the patients fever and rigidity developed within four days and altered state of consciousness within a week. It is, therefore, suggested that long acting phenothiazine may be avoided in acutely disturbed patients with effective symptoms. For other neuroleptics, close observation is advised specially for fever, undue rigidity and appearance of confusion within the first four days of their administration. Antiparkinsonian drugs may be avoided in hospitalized patients.

REFERENCES

1. Preston, J. Central nervous system reactions to small doses of tranquilizers; Report of one death. *Am. Pract. Digest. Treatment*, 1959; 10:627.
2. Delay, J., Pichot, P., Lemperiere, T., Elissalde, B. and Peigne, P. Non-phenothiazine and non-reserpine major neuroleptic, haloperidol, in the treatment of psychoses. *Ann. Medicopsychol*, 1960; 118:145.
3. Levenson, J. L Neuroleptic malignant syndrome. *Am. J. Psychiatry*, 1985; 142: 1137.