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A Case of Neuroleptic Malignant Syndrome in Patient with Schizophrenia from a Tertiary Care Hospital of Tripura

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Abstract:
Neuroleptic malignant syndrome (NMS) is an unpredictable iatrogenic emergency condition mainly due to idiosyncratic reaction to antipsychotic agent use. A 34 yrs old married female with past history of significant psychiatric illness presented to our ward with symptoms of decreased sleep, abnormal behaviour, irrelevant talk, suspiciousness and fearfulness for 1 month. On admission diagnosis of schizophrenia was made and patient was started on haloperidol. She developed high grade fever without chills and rigors on the 2nd day with fluctuating BP, tachycardia,icterus with increased muscle tone and rigidity. As her condition deteriorated on the 3rd day, all antipsychotics were stopped and a diagnosis of NMS was made and aggressive medical management started to revive the patient.This case shows the need for early diagnosis and prompt management to reduce morbidity and mortality .

Key Words: *NMS, Neuroleptic malignant syndrome, Antipshychotic drug.*

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I. Introduction:

Neuroleptic Malignant Syndrome is a rare clinical syndrome occurring due to idiosyncratic reaction after use of neuroleptics. It was first described in 1967 as "akinetic hypertonic syndrome."[1,2].Neuroleptic malignant syndrome is characterised clinically by muscle rigidity, hyperthermia, autonomic instability, and acute mental status change with a current incidence rate ranging from 0.01 to 0.02%.[3] The mortality is 10%–30%.[1] NMS is an infrequent yet potentially fatal adverse effect of the neuroleptic class of antipsychotic medications. NMS is possible with all neuroleptics. It can be easily recognized in its classic form but the lack of a specific diagnostic criteria along with its rare occurrence has limited further study in this field [4]. Nowadays, NMS remains a significant source of morbidity and mortality among patients receiving antipsychotics, and often requires transfer to an intensive care unit, potentially interrupting psychiatric care.[5]

II. Case Report:

A 34 yrs old married female,from a lower socio-economic strata had symptoms of decreased sleep, abnormal behaviour, irrelevant talk, suspiciousness and fearfulness for 1 month . She didn't take care of her personal hygiene, didn't eat food unless forced and didn't interact with anyone. Sometimes she became aggressive without provocation. There was social, biological and occupational impairment. She had delusion of persecution towards her neighbours. She used to mutter by herself. As her symptoms deteriorated, she was taken to a private psychiatrist who made a diagnosis of Acute & Transient Psychotic disorder and prescribed Tab Risperidone 4mg, Tab Quetiapine 100 mg, Tab Trihexyphenidyl 2 mg,Tab Lorazepam 2mg and advised admission in the hospital.But she was taken back home & she took the prescribed medication for 3-4 days. Gradually her symptoms deteriorated. She wasn't able to eat food & drink water. She became very restless. She was admitted in Psychiatry ward. There was significant past history of psychiatric illness before. On psychiatric evaluation she was found to be disoriented to time place and person with blunted affect, speech productivity decreased and reaction time increased with incomprehensible speech in between. A diagnosis of schizophrenia was made and she was started on Injection Haloperidol 5 mg and Injection Lorazepam 4mg. Following her admission, her condition kept on deteriorating over the next 2 days as she wasn't able to eat at all or drink water and she wasn't able to open her mouth. There was stiffness of her whole body. She had to be restrained as she was very restless. She developed high grade fever without chills and rigors on the 2nd day with fluctuating BP, tachycardia,icterus with increased muscle tone and rigidity. She was not passing stool. On laboratory investigation there was dearranged LFT and Leukocytosis. Creatine phosphokinase was raised. Parenteral fluids were started and she was catheterized. Injection Promethazine 50 mg was given 12 hrly and Injection Haloperidol was stopped. Tab Amisulpride 100 mg OD was started. There was incoherent continuous muttering. As her condition deteriorated on the 3rd day, all antipsychotics were stopped. On advice of

Physician,Ryle's tube feeding was started and she was shifted to Medicine Ward. Her condition gradually improved over a period of 5 days with symptomatic management. She didn't come back therafter for followup.

III. Discussion:

NMS is one of the life threatening adverse drug reaction associated with dopamine receptor antagomists.It is an unpredictable iatrogenic emergency condition mainly due to idiosyncratic reaction to antipsychotic agent use. Here our diagnosis of _neuroleptic malignant syndrome in a patient of Schizophrenia,meets both of Criteria A and >2 of Criteria B of DSM – IV TR Criteria for Neuroleptic malignant syndrome.Criteria A 1.Muscle rigidity 2.Fever. Criteria.B 1.Diaphoresis 2.Dysphagia 3.Tremor 4.Incontinence.This case shows the importance of of early recognition of the signs and symptoms to reduce the mortality and morbidity associated with neuroleptic malignant syndrome. Studies has shown that it is more likely to occur in patients who are dehydrated and agitate requiring higher dosage of neuroleptic medication medication soon after admission into hospital and who continues to receive the same for next few days.[6] here in our cases too the patient was agitated and was restained from drinking and having food for last one month and was on quetiapin and risperidone before coming to hospital and on haloperidol after admission which might have triggered NMS. Literature review has shown NMS with quetiapin , haloperidol, risperidone therapy.

IV. Conclusion:

NMS is a rare but fatal complication of high potency neuroleptic agents such as haloperidol. Early recognition and prompt stoppage along with aggressive medical management is crucial in the management of NMS. Approximately 2 weeks after resolution of NMS treatment with low potency atypical antipsychotics should start at a low dose and mponitored carefully for signs and symptoms of NMS.

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