

IS CATATONIA A RISK FACTOR FOR NEUROLEPTIC MALIGNANT SYNDROME? A CASE REPORT

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INTRODUCTION: Catatonia and neuroleptic malignant syndrome (NMS) are severe neuropsychiatric conditions with overlapping features including altered consciousness, motor abnormalities, autonomic instability, and hyperthermia. NMS usually emerges shortly after antipsychotic initiation or dose escalation and is characterized by hyperthermia, muscle rigidity, autonomic instability, altered consciousness, and elevated CK.

Hypodopaminergic activity in catatonia may be exacerbated by dopamine blockade. Dehydration or inadequate oral intake may further precipitate NMS. We report NMS developing after antipsychotic treatment in a patient with schizophrenia presenting with prominent catatonic features.

CASE: A 30-year-old male with schizophrenia was admitted with standing motionless for hours, marked psychomotor retardation, unresponsiveness, refusal of oral intake, and perseverative religious-themed thought content after discontinuing antipsychotics one month earlier.

Evaluation revealed mutism, negativism, posturing, and decreased responsiveness consistent with stupor. According to DSM-5, at least four catatonic symptoms (mutism, negativism, posturing, stupor) were present. He was hospitalized with a diagnosis of catatonic syndrome.

Due to persecutory delusions, quetiapine XR 300 mg/day, quetiapine IR 50 mg/day, and vortioxetine 20 mg/day were initiated. On day two, he developed fever >38°C, sinus tachycardia, diaphoresis, and CK 8,816 U/L. With suspected NMS, he was transferred to intensive care.

Antipsychotics were discontinued. Because of absent oral intake, diazepam 2×10 mg IV was administered for four days instead of lorazepam. Dantrolene 20 mg IV and bromocriptine 2×2.5 mg were briefly added. Hyperthermia, rigidity, elevated CK, and autonomic instability gradually resolved.

Catatonic symptoms (mutism, posturing, negativism) persisted, and he returned to the psychiatry ward. Benzodiazepine treatment and supportive care were continued.

Consent: Written informed consent was obtained from the patient's relatives.

DISCUSSION: Catatonia and NMS overlap in motor symptoms, autonomic instability, and altered consciousness. Beyond symptomatic similarity, a possible pathophysiological association has been proposed.

Dopamine D2 receptor blockade underlies NMS, and dopaminergic dysfunction also contributes to catatonia. Antipsychotics may exacerbate catatonic symptoms, suggesting that initiating treatment during catatonia may increase vulnerability to NMS.

Reports describe interaction between antipsychotic-induced catatonia and NMS. In this case, NMS developed shortly after antipsychotic initiation in a patient with catatonic features, supporting the view that catatonia may represent a potential risk factor for NMS. Careful assessment before initiating antipsychotics in catatonic patients is therefore clinically essential.

Keywords: Catatonia, neuroleptic malignant syndrome, schizophrenia