**Title** : Neuroleptic Malignant Syndrome as a Result of Abrupt Cessation of Clozapine.

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**Introduction**

Neuroleptic malignant syndrome (NMS) can be caused by the usage of anti-dopaminergic drugs which are typically used in psychiatric patients. We report such a case that presented with the syndrome not due to the drug toxicity but from the sudden cessation of the drug usage.

**Case Presentation**

39 Malay lady with underlying schizophrenia brought in by her mother after found unresponsive and was sleeping excessively for past 2 days. Patient was tachycardic at 135 bpm with temperature of 39.3 degrees Celcius. Capillary blood sugar was 6.8 mmol/L. Both pupils were normal in size and reactive. Patient’s GCS was noted to be 11/15 (Eye 4, Verbal 2 and Motor 5). Noted bilateral upper limb and lower limb rigidity with normal neurological reflex. Upon further questioning, patient was on tablet clozapine 125 mg on morning and 450mg on night and the drug administration was controlled by the mother. However, past 2 days, patient did not take the drugs. After patient was given IV Diazepam 5 mg, her GCS improved to 14 (E4V4M6) and rigidity improved. Investigation wise, phosphate level was low at 0.4 mmol/L. Urea was 5.7 mmol/L and creatinine 119 ummol/L and creatinine kinase was 652 U/L. Diagnosis of neuroleptic malignant syndrome (NMS) was made. Patient was subsequently admitted and regained full GCS in the ward. The anti-psychiatric medications were restarted in the ward and patient was discharged well with follow up planned by the psychiatric team.

**Discussion**

Clozapine, an antidopaminergic drug is involved in multiple neurotransmitter mechanism so when abrupt cessation causes cholinergic rebound symptoms.

NMS symptoms typically present within 2 days of cessation of the drug as seen in our case. However, there are other conditions that can mimic NMS such, meningitis, encephalitis, salicylate overdose, serotonin syndrome. Early detection NMS is important to avoid serious complications such rhabdomyolysis causing renal failure, seizure, and cardiac arrhythmias.

**Conclusion**

This case illustrates that NMS can occur not only as a side-effect of anti-dopaminergic drug (in this case clozapine) but also abrupt withdrawal of the drug. The cause of this condition was not due to drug toxicity but instead it’s cessation.