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## CASE REPORT

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# Haloperidol Induced Dystonia

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### BACKGROUND INFORMATION

Haloperidol is a typical antipsychotic used in the treatment of Schizophrenia, and more acutely in the treatment of acute psychosis and delirium. It is in the butyrophenone class of antipsychotic medications and has pharmacological effects similar to the phenothiazines. Haloperidol is the first of the butyrophenone series of major antipsychotics.

### CASE PRESENTATION

This is a 17 year old Latin American male with the diagnosis of Substance induced mood disorder with psychosis Vs Bipolar I Disorder, , severe with psychotic features. The patient had been transferred to the psychiatric unit after being medicated twice with Haloperidol because of physical aggression towards others from a local medical facility. This is his first admission to a psychiatric hospital. The patient had been using Marijuana and Methamphetamines for more than a year. The urine toxicology results were positive for Marijuana and Methamphetamines.

The patient was seen to be confused, incoherent, disoriented, dishelved with disorganized speech and violent behavior towards others. He would say things out of context and sentences which made no sense during the interview. He was laughing inappropriately and also had crying spells simultaneously. Patient was noticed to have been leaning his head towards his right side and was unable to move the neck. At the same time, patient had slurred speech with his tongue protruding to the outside of his mouth. On examination he was not able to either move his neck or put his tongue back in the mouth. Patient was in severe distress due to his awkward posture. This picture is typical of Dystonia, one of the extrapyramidal side effects of Haloperidol seen in males and younger age groups. The patient was completely relieved of the distress with intramuscular injections of Diphenhydramine and Lorazepam within 20 minutes.

### DISCUSSION

Dystonia is defined as a neurological movement disorder in which sustained muscle contractions cause twisting and repetitive movements or abnormal postures. The movements which are involuntary and sometimes painful may affect a single muscle, a group of muscles such as those in the arms, legs, neck or the entire body. Acute Dystonia is a condition which can be induced in a person who gets medications like Haloperidol. Acquired Torticollis is a form of dystonia which affects the neck muscles and the face is turned to the same

side which this patient suffered from. Haloperidol interferes with the effects of neurotransmitters in the brain which are the chemical messengers that nerves manufacture and release to communicate with one another. It blocks receptors for the neurotransmitters (specially the Dopamine and Serotonin Type II receptors) on the nerves. As a result, the nerves are not "activated" by the neurotransmitters released by other nerves. The treatment of dystonia is usually straightforward and almost always affective. Intramuscular administration of anticholinergics like Beztropine or Diphenhydramine or the use of antihistamines like Promethazine is usually very effective. In some cases Benzodiazepines are very helpful to treat dystonia.

This patient gives a picture of Haloperidol causing physical and emotional distress due to its severe side effects. Fortunately, it is very simple and easy to treat the side effects caused by Haloperidol. It is seen periodically that the Emergency room physicians use Haloperidol as the drug of choice to calm people down who are either aggressive or psychotic. The only problem is, when it is used in large doses the patient frequently ends up with severe side effects such as acute Dystonia as seen in this patient. Physicians need to be very careful in using chemical restraints with patients and keep in mind the potential side effects the patient might have to suffer.

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