

Haloperidol, Divalproex Sodium and Priapism-A Case Report

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Abstract: Priapism is a condition of persistent penile erection without stimulation that can cause serious consequences. There have been few reported cases of priapism caused by antipsychotics and only one case report of that caused by sodium valproate. In our case a 26 year old male, known case of bipolar disorder presented with priapism after taking combination of haloperidol and sodium valproate. Our case highlights the need for physicians to be aware of the potential for this serious adverse effect, to select the appropriate molecule after careful history taking and the need for early intervention and appropriate treatment to prevent permanent impotence and other serious complications.

Keywords: Priapism, penile erection, bipolar disorder.

INTRODUCTION

Priapism is defined as a persistent erection of the penis or clitoris that is not associated with sexual stimulation or desire[1]. It is very rare condition, with an incidence of 0.73 per 100,000 men per year[2]. There are several cause of priapism and it may cause due to some drugs like antipsychotic drugs[3].

CASE SUMMARY

A 26 year old, male, muslim, married, driver by occupation presented to the psychiatric OPD with the complaint of sustained painful penile erection for last 20 days. There have been 5-6 episodes of irritability, tall claims, anger outburst, over talkativeness each lasting 10-15 days in last 1.5 years (rapid cycling).

The recovery would be complete either spontaneously or with some medication, record of which were not available. One month back again had episode with similar complaints for which he took T. Haloperidol 10mg and T. Divalproex 500mg. On the 11th day of taking the tablets, he had the complaint of sustained painful penile erection that persisted despite discontinuing medication. The behavior symptoms though subsided after taking medicines for 10 days. There has not been history of intake of PDE inhibitors. On Mental status examination he was cooperative, normal speech productivity and motor activity, euthymic affect with no abnormality in thought and perception and insight grade 4. On the previous night of the onset of presenting complaint he had intercourse that was uneventful and erection subsided as well. Investigations which included complete blood count, renal function tests & liver function tests were done & found to be within normal range. Colour Doppler of the penis was suggestive of low flow priapism (ischemic) type. The patient was then sent to surgery department for further management.

DISCUSSION

The exact mechanism of the role of antipsychotic in the occurrence of priapism are not properly known and a multifactor etiology in the form of anticholinergic, anti-histaminergic, anti-serotonergic and antiadrenergic properties of antipsychotics seems the most likely. It has been suggested that priapism is related to α adrenoceptor antagonism in the absence of adequate anticholinergic activity [4]. Neuromuscular hypothesis is the most mentioned, involving the blocking action of α 1-adrenergic receptors of the corpora cavernosa for which most of antipsychotics have an affinity. Changed expression of α 1 adrenergic receptors or phosphodiesterase enzyme might be the mechanism behind the priapism induced by valproate since inhibition of histone deacetylase by sodium valproate is known to alter gene expression regulated by multiple promoters [5].

CONCLUSION

There have been case reports of haloperidol induced priapism and one case report of valproate induced priapism. Food and Drug Administration of United States of America mentioned about four cases of priapism developing on sodium valproate [6]. In our

case, the patient was on the combination of haloperidol and divalproex sodium, and either or both can be responsible for the side effect which is difficult to conclude. Though rare side effect, psychiatrists have to be cautious and history regarding same must be thoroughly evaluated.

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