Two Priapism Cases Following Short-Term Use of Chlorpromazine

Kısa Dönem Klorpromazin Kullanımına Bağlı İki Priapizm Olgusu

Klorpromazin Kullanımı ile İlişkili Priapizm / Priapism Associated with the Use of Chlorpromazine

Sadi Turkan[1], Mehmet Kalkan[2], Coşkun Şahin[2]
[1]Kastamonu Anadolu Hospital, Urology, Kastamonu,
[2]Fatih University, Sema Hospital, Department of Urology, Istanbul, Turkey

Özet

Priapizm ürolojik acil müdahale gerektiren bir durumdur. Priapizm İki tip tarif edilmiştir: düşük ve yüksek akım. Yüksek akım priapizm penil veya perineal travmaya sekonder oluşur. Daha yaygın olan düşük akımlı priapizm, çeşitli kan bozuklukları, alkol spinal kord lezyonları ve çeşitli ilaçlar bağlı olarak oluşur. Düşük akımlı priaspizm etiyolojisinde en sık neden ilaçlardır. İlaca bağlı priapizmde antipsikotik ajanlar vakaların% 15-26 sorumludur. Psikotrop maddelerin periferik ve merkezi etkileri bilinmesine rağmen, doz, alımı süresi ve priapizme nedeni etyoloji açıklık henüz bilinmemektedir. Biz, tek doz ve 4 hafta boyunca klorpromazin almış farklı iki olguda gelişen priapizmi literatür eşliğinde sunuyoruz.

Anahtar Kelimeler

Priapizm; Antipsikotik İlaçlar; Klorpromazin

Abstract

Priapism is a condition that urologically requires emergency intervention. Two types of priapism have been described: low and high flow. High flow priapism occurs secondary to penile or perineal trauma. The more common low-flow priapism occurs depending on various blood disorders, alcohol spinal cord lesions, and various medications. Medications are the most common cause in the etiology of low-flow priaspsism. Antipsychotic agents in drug-induced priapism are responsible for 15-26% of cases. Althoughthe periferal and central effect of psychotropic agents are known, dose, intake duration, and the etiology causing priapism is yet to be clarified. In this report, along with a review of the literature, we present two priapism cases which developed in different patients who took single dose chlorpromazine for 4 weeks.

Keywords

Priapism; Antipsychotic Agents; Chlorpromazine

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Corresponding Author: Mehmet Kalkan, Fatih Üniversitesi, Tıp Fakültesi Hastanesi, Sahil Yolu Sok. No: 16, 34844 Dragos, Maltepe, İstanbul, Turkey.
GSM: +905322650917 F.: +90 2163528359 E-Mail: mkalkan@fatih.edu.tr

Introduction

Priapism is a painful, prolonged penile erection lasting for a long time without any sexual stimulation. This condition urologically requires emergency intervention. Two types of priapism have been described: low and high flow. High flow priapism occurs secondary to penile or perineal trauma, whereas sickle-cell anemia, leukemia, anticoagulants, alcohol spinal cord lesions, and various medications may give rise to low flow priapism [1]. Medications are the most common cause in the etiology of low flow priapsism. Antipsychotic agents account for 15%-26% of drug-induced priapism. Although alpha-1 blockade and central serotonin-like activities of psychotropic agents are known, dose and intake duration causing priapism and the etiology are yet to be clarified [2].

In this report, we present two priapism cases which developed in different patients who took single dose chlorpromazine for 4 weeks.

Case Report

Case 1: A 54-year-old male patient developed priapism 6 hours after after he took single dose chlorpromazine (Largactil ® 100 mg tablet, Eczacıbaşı, Turkey), due to a fulminant bout of hiccups which lasted a few hours. Patients who did not care about priapism presented to our clinic after 3 days. Corporal aspiration and diluted intracavernosal adrenalin administrations failed. Distal corporo-spongial T-Shunt was implemented and detumescence was obtained. The patient who had erectile dysfunction was recommended penile prosthesis implantation on his follow-up after three months.

Case 2: A 63-year-old male patient was put on chlorpromazine (Largactil® 100 mg tablet, Eczacıbaşı, Turkey) because of agitation, paranoid manifestation and delirium. The patient who developed priasm in the first month of drug administration presented to our clinic after two days. Corporal aspiration, intracavernosal diluted adrenalin and a subsequently performed Winter shunt failed. Thereafter, detumescence was achieved through distal corporo-spongial T-shunt. The patient underwent malleable penile prosthesis implantation due to erectile dysfunction on the six month follow-up.

There were not take a medicine and predisposan factor for priapism in this patients.

Discussion

Priapism is an important urologic emergency. This condition may cause erectile dysfynction when not intervened early. Although priapism resulting from antipsychotic drugs is not seen often, this is an important condition. Even after proper interventions, 40-50% of the cases may develop erectile dysfunction [2]. Drugs including thiothexene, chlorpromazine, thioridazine and risperidone have a relatively high alpha-1 adrenergic activity as accusative factor of priapism. Etiology of drug-induced priapism is yet to be clarified. Likewise, in one of our patients, priapism cases which developed after just five days after use of single dose chlorpromazine have been reported. Furthermore, priapism cases are also seen in the persons who have used long-term and regular medications, such as first month or three years of chlorpromazine administration [3, 4]. Kilciler et al presented a 30-year-old man with priapism for 8 hours. He had been receiving just chlorpromazine for chronic schizophrenia for 3 years [3]. Although millions of men take antipsychotics, antidepressants or antihypertensive agents, only a few develop priapism. The dose of clinical use does not seem to influence the probability of priapism significantly. Although the dose of chlorpromazine that causes priapism is controversial, it is not considered to be a dose–specific complication. These results support the opinion that priapism is independent from the intake, duration, and dose of medications. However, the biological characteristics of some patients were thought to increase the tendency for priapism and to lower the cut-off value for development of priapism [5]. Netherless, further studies in order to identify the patients with a tendency to this condition in advance are needed.

In a study investigating local administration of chlorpromazine on the development of priapism, injection of intracorporal chlorpromazine was found to create papaverin-like erections in dogs [6]. Alpha-1 antagonistic activities of some antipsycotics have been thought to be responsible for development of priapism. It has been reported in a study that alpha-1 receptor affinity of different antipsycotics might be correlated with their relative tendency of causing priapism [7].

Chlorpromazine and thioridazine have the highest alpha adrenergic affinity among antipsycotic medications and are the most reported to cause priapism [8]. Combined use of antipsycotic agents have been thought to increase the development of priapism in a patient who used combined chlorpromazine risperidone [2]. Recently, a number of priapism cases have increased depending on antipsycotic drug intake. Therefore, physicians and patients must be sensitive to this issue.

Competing interests

The authors declare that they have no competing interests.

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