

Priapism as an Initial Presentation of Chronic Myelogenous Leukemia: A Case Report

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ABSTRACT

We report the case of a man with priapism, which is the initial presentation of chronic myelogenous leukemia. Aspiration and decompression was performed to the patient admitted to our clinic with the diagnosis of priapism. During hospitalization, peripheral blood smear and bone marrow aspiration was done in patient leucocytosis was detected. Hydroksyurea and allopurinol was started to the patient after chronic myeloid leukemia was confirmed. In one week leucocyte level was decreased to normal values. This case demonstrates the importance of identifying the underlying cause of priapism, as it directly influences both initial and ongoing management.

Key Words: Priapism, Chronic myeloid leukemia, Penile erection

ÖZET

Priapizm ile Ortaya Çıkan Kronik Myeloid Lösemi Olgusu: Olgu Sunumu

Kliniğimize priapizm nedeniyle başvuran hastaya acil aspirasyon ve dekompresyon uygulandı. Hastanın yapılan hemogramında lökositöz saptanması üzerine klinik ve laboratuvar incelemeler (periferik yayma, kemik iliği aspirasyonu) yapıldı. KML tanısı konulan hastaya hidroksyurea ve allopurinol başlandı. Bir hafta içinde lokosit düzeyleri normal seviyelere inen hasta KML açısından takibini sürdürmektedir.

Bu olgu priapizmin altta yatan sebebini araştırmanın hastanın başlangıç ve idame tedavisini yönlendirmedeki önemini göstermektedir.

Anahtar Kelimeler: Priapizm, Kronik myeloid lösemi, Penil ereksiyon

INTRODUCTION

Priapism is persistent, prolonged and painful abnormal erection of the penis without accompanied sexual arousal. It is traditional to consider priapism as idiopathic and secondary. Priapism can be categorized as low flow (ischemic) or high flow (non ischemic). High flow priapism can be secondary to penile or perineal trauma.

In adults, the most common causative factor for low flow priapism is intracavernosal injection of vasoactive substances for the treatment of impotence (1). About 20% of priapism is related to hematological disorders. Our case shows that priapism can be an unusual presenting symptom of chronic myeloid leukemia.

CASE REPORT

A 55-year-old man was referred to our clinic for priapism. The patient has no known medical problem previously. He was concerned about the extreme duration of the painful erection, which lasted 8 hours. There was no history of recent intercourse, trauma, the use of an intracavernosal agent, use of drugs or radiation therapy. Treatment of the priapism was initiated by cavernosal aspirations through an 18-22 gauge needle and epinephrine irrigation. No satisfactory result was reached. Color Doppler ultrasonography revealed low flow priapism. Therefore, transglanular to corpus cavernosal needle core technique was performed (2). The erection was relieved later by this procedure. In the evaluation of the patient, the liver was palpable 2 cm below the right costal margin, and the spleen was 3 cm below the left costal margin. Laboratory data showed haemoglobin (Hb) 9 g/dl, hemotocrit 25.3%, white blood count (WBC) 184,000/mm³, Platelet 277.000/mm³ LDH 1163 U/L. For hyperleukocytosis, he was admitted to the hematology clinic and was diagnosed as a case of chronic myeloid leukemia based on peripheral blood smear and bone marrow examination. The Philadelphia chromosome (t(9:22) p210) was illustrated in the patient. He was started on hydroxyurea tablets at 1.5 gram per day and allopurinol 300 mg daily while adequate hydration was also started for potential tumour lysis syndrome. Before discharge,

his WBC dropped to 8100/mm³ and LDH to 305 U/L. No recurrent priapism happened during hospital stay.

DISCUSSION

Priapism is an involuntary, prolonged erection unrelated to sexual arousal. Sick cell anaemia, chronic myelogenous leukemia, chronic lymphocytic leukemia, and acute lymphoblastic leukemia are hematologic disorders that can be a cause of priapism (3). In adult leukemic patients, the incidence of priapism is estimated to be approximately 5% (4). Leukemic cells probably sludge within the corporeal bodies, but other possible factors include leukemic infiltration of the sacral nerves or central nervous system and abdominal and pelvic venous obstruction. In chronic myeloid leukemia, priapism is an unusual presentation and thought to be caused by hyperleukocytosis.

The diagnosis of underlying pathophysiology is important. In our case, the priapism alerted us to previously undiagnosed chronic myelogenous leukemia. Regardless of the etiology, the prompt management of priapism is important. If detumescence does not occur after cavernosal aspiration and phenylephrine injection, the diagnosis of low-flow priapism should be confirmed by either penile blood gas analysis or color Doppler study (5). If low-flow priapism is confirmed, then phenylephrine injection may be repeated up to three times. If detumescence still does not occur, surgical shunting can be necessary. Because of the relatively rare occurrence of leukemic priapism and small number of case series, there is no standard treatment protocol. Suri et al. (6) recommend chemotherapy and leukopheresis. A similar conclusion was achieved by Becker et al. (7) who recommended chemotherapy and leukopheresis followed by surgical shunting if detumescence is not obvious. We recognize the importance of the CBC evaluation to screen for the possibility of hematologic malignancies in priapism cases.

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