

Case Reports

Undiagnosed Chronic Myelogenous Leukemia Presented By Priapism

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Abstract:

Priapism is a potentially painful medical condition in which the erect penis does not return to its flaccid state, despite the absence of both physical and psychological stimulation, within four hours. Priapism is considered a medical emergency. The causative mechanisms are poorly understood but involve complex neurological and vascular factors. Priapism may be associated with haematological disorders, especially sickle-cell disease, sickle-cell trait, and other conditions such as leukemia, thalassemia and Fabry's disease, and neurologic disorders such as spinal cord lesions and spinal cord trauma. Priapism is a complication rarely seen in leukemia. In this case report we present a rare case of leukemia with rare presentation.

Keywords: priapism, chronic myeloid leukemia, emergency department, impotency

INTRODUCTION

Leukemia is frequently associated with painful priapism [1-2]. Besides the initial relief of priapism, the further workup is mandatory. Priapism debut appearance as a hematologic dyscrasia is a rare event. It is a urological emergency, requiring early multidisciplinary (Urology and Hematology) management, the earlier interventional management will guarantee good results, excellent functional outcome and the preservation of a good quality of life [3]. About 20 percent cases of all priapism are related to hematological disorders [4]. The incidence of priapism in adult leukemic patients is about 1-5 percent and leukemia management of the underlying disease are more important [5].

Case Presentation

A previously healthy 36 year old male patient came to Emergency Room complaining of bleeding at the site of puncture for drainage of priapism and hematuria which done in other hospital. Patient admitted, compression done and all laboratory investigations, Ultrasounds abdomen and pelvis done. Laboratory data showed hemoglobin (Hb) 12 g/dl, hematocrit 32.9%, white blood count (WBC) 231 k/ul, and Platelet 113 k/ul. Serum chemistries were unremarkable for uric acid 464 µmol/L, creatinine 105 µmol/L.

Peripheral blood film showed marked leukocytosis with picture of chronic myelogenous leukemia in chronic phase. Ultrasounds showed hepatosplenomegaly. Patient referred to Hemato Oncology and they start him on hydroxycarbamide.

DISCUSSION

An hemogram revealed that the repeated episodes of priapism were caused by a chronic myeloid leukaemia.[6]. in case of hematologic malignancy, priapism is most likely caused by venous obstruction from microemboli/thrombi as well as hyperviscosity caused by the increased number of circulating leukocytes in mature and immature forms [7]. Subsequent treatment must be instituted quickly to optimize probability of long-term potency. Further experience is necessary to define the best use of surgery in the resolution of leukemic priapism [8]. Despite good hematological response to therapy, an extensive penile and urethral necrosis, associated to an Acinetobacter infection, required surgical treatment [9].

After the failure of conservative treatment, glans-cavernosal shunt (Winter procedure) can be performed with uneventful postoperative course and the intercourse is possible at five months after the operation [10]. There is controversy regarding the optimal treatment of leukemic priapism due to rare occurrence of leukemic priapism and the small number of case series. Earlier series of case reports show successful detumescence with local radiation therapy, open surgical shunting, or combination of the two treatments [11]. More recent literature has focused on the use of cytoreductive modalities such as chemotherapy or combination chemotherapy and leukapheresis [12]. There is no standard treatment protocol, Chemotherapy or radiotherapy may first be attempted. If detumescence is not achieved, then surgical shunting should be considered [13]. We recommend that all cases of priapism is mandatory to perform complete blood count (CBC) and work according to the finding which is cost effective.

CONCLUSION

Although priapism is a rare presentation of Chronic Myelogenous Leukemia, all cases of priapism should have complete blood count (CBC) and work according to the finding and it is cost effective

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