

**OP20 PRIAPISM: AN  
EXCEPTIONAL PRESENTATION  
IN MALE PATIENTS WITH  
CHRONIC MYELOID LEUKEMIA**

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**INTRODUCTION**

Priapism is a persistent penile erection unrelated to sexual stimulation. We report a case of a young adult who presented to the emergency department (ED) with priapism and later diagnosed with chronic myeloid leukemia (CML).

**CASE DESCRIPTION**

A 22 year old male presented to ED with history of an erect penis for more than 4 hours duration. Patient complained of mild discomfort over the penis but was still able to pass urine. There was no history of trauma, fever, hematuria or use of any medication. Patient was well orientated with stable vital signs. Physical examination revealed hepatosplenomegaly. His penis was erect and firm. Laboratory findings revealed white blood cell count of  $366.0 \times 10^3/\mu\text{L}$ , platelet count of  $843 \times 10^3/\mu\text{L}$ , uric acid  $534 \mu\text{mol/L}$  and lactate  $1104 \text{ U/L}$ . The working diagnosis of the patient was priapism with underlying hematological malignancy. His erection was relieved by therapeutic aspiration, irrigation and intracavernous adrenaline injection by the urology department. He was started on hydroxyurea therapy, allopurinol and given adequate hydration for potential tumor lysis syndrome. Peripheral blood film showed features suggestive of CML. Patient was transferred to a hematology center and

started on cytoreduction therapy. Bone marrow aspirate and trephine biopsy revealed hypercellular marrow with granulocytic hyperplasia. Detection of BCR-ABL 1 fusion transcript (Major, b2a2) by qualitative PCR confirmed the diagnosis of chronic phase CML. Patient is currently on imatinib 600mg /day with no reoccurrences.

**DISCUSSION**

Only <3% of CML patients present with priapism as their initial presentation. The pathophysiology is related to venous obstruction from microemboli/thrombi and hyperviscosity due to increased number of circulating leukocytes. Urological aspiration and irrigation will provide immediate relief and decrease the risk of erectile dysfunction. Subsequent systemic treatment for CML is needed to treat the underlying mechanism and prevent priapism recurrence.

**CONCLUSION**

Our case is unique as priapism is a rare presentation in CML. Priapism is a urological emergency that needs timely diagnosis and prompt treatment to prevent erectile dysfunction. In our case, early surgical and oncological intervention has yield a good outcome for the patient.

**Keywords:** Chronic myeloid leukemia, Priapism, Erectile dysfunction