



## Management of Priapism Secondary to Leukemia Using the Winter Procedure: A Case Report

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### Abstract

Hyperviscosity resulting from leukemia is a rare cause of priapism. A case of 17 - year old man with 15 - hour history of priapism secondary to undiagnosed chronic myeloid leukemia was reported. This patient achieved detumescence and led to subsequent ability of erection by the Winter procedure (transglandular cavernosum - spongiosum shunt).

**Key Words:** Priapism, Chronic Myeloid Leukemia, Winter Procedure

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Priapism is a prolonged, painful penile erection that occurs when blood in the penis is "Trapped" or unable to drain. The stagnant blood causes an erection that can last from hours to days. A painful erection lasting for more than 4 hours indicates priapism. If not treated promptly scarring and permanent inability to achieve an erection (impotence) can result.[1] Priapism is frequently associated with a number of important medical conditions and pharmacologic agents. Two types of priapism are generally described : veno-occlusive low flow (ischemic) and arterial high flow (nonischemic).

## A Case Report

A 17-year-old man presented with 15 - hour painful penile erection, no history of any medical

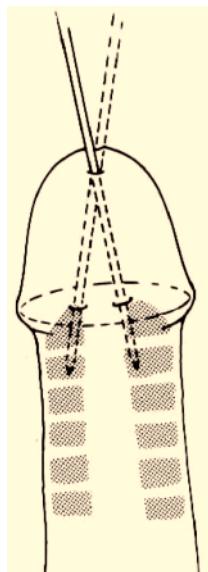
conditions. Laboratory investigations were done the result of urinalysis was within normal limit, complete blood count showed wbc = 32,900 cells/mm<sup>3</sup>, Hct = 28%, platelet count = 1,240,000 cells/mm<sup>3</sup> neutrophils = 68%, lymphocyte = 16%. The patient underwent emergency surgical management by the Winter procedure:

Initial treatment by aspiration and intracavernous irrigation with iced saline was unsuccessful. The Winter procedure was performed to create fistulas between the corpora cavernosa and the glans penis (Fig.1). This approach resulted in a flaccid penis later. No impotency nor other sequela was noted after surgery.

During hospitalization, peripheral blood smear and bone marrow aspiration was confirmed of chronic myeloid leukemia and he was treated by hematologist.

## Discussion

Priapism is a true and rare urologic emergency that may lead to permanent erectile dysfunction and penile necrosis if left untreated within 24 hours.[2] Priapism is a complication rarely seen in leukemia.[3,4] Chronic myeloid leukemia was diagnosed in this patient during hospitalization and he was treated with chemotherapy by hematologist. This case showed that priapism secondary to leukemia can be successfully treated using the Winter procedure (trans-glandular cavernosum - spongiosum shunt) when conservative treatment fails. This resulted in detumescence of the penis, without complication.



**Fig. 1** Several fistulas were created with a biopsy needle, usually two in each corpus cavernosum using the same entry site on the glans.

## เอกสารอ้างอิง

1. Fernandez AM, Martihas PF, Musial A, Spahn M, Junemann K, Alken P. Diagnosis and therapeutic options for prolonged erection and priapism : Update review. **Arch Esp Urol** 2000; 53: 919-27.
2. Vilke GM, Harrigan RA, Ufberg JW, Chan TC. Emergency evaluation and treatment of priapism. **J Emerg Med** 2004; 26: 325-9.
3. Allue LM, Garcia DJMA, Pascual RD, Mallen ME, Villanueva BA, Rioja SL. Priapism as an initial presentation of chronic myeloid leukemia. **Actas Urol Esp** 2004; 28: 387-9.
4. Chang G. Priapism - A rare presentation in chronic myeloid leukemia: A case report and review of the literature. **Med J** 2003; 26: 288-92.