Sahay's modification of Winter's shunt technique for priapism

Priapism is a urological emergency. Ischemic priapism is the most common form and results from persistent obstruction of venous outflow from the lacunar spaces.[1] 80% to 90% of clinically presented priapism are low flow or veno-occlusive disorders.[2,3] Winter's shunt is one of the most common techniques used to achieve detumescence when aspiration and irrigation are unsuccessful. In the original Winter's shunt, a communication was created between glans and cavernosa using a large biopsy needle.[4] The problem faced with the Winter's Shunt is incomplete detumescence and recurrence of priapism due to early blockage of the shunt.[5] We describe a novel modification of Winter's shunt to provide rapid detumescence with lesser chance of recurrence.

Men who presented to the emergency department with persistent erection for more than 4 h with a prior unsuccessful attempt of aspiration and irrigation with normal saline and diluted phenylephrine solution were taken for creation of a distal shunt. A Foley catheter was placed in the bladder. The metallic trocar that is included in the suction drain set (Romo Vac Set® -GS-5002, Romsons, NOIDA, India) was used to pierce into the corpora cavernosa through the glans penis [Figure 1]. The metallic trocar was inserted through the glans penis and directed toward the base of the penis in the corpora cavernosa [Figure 2]. The direction of the tip of the trocar was outwards to avoid injury to the urethra. After removing the trocar, the penile shaft was squeezed between the fingers from the base toward the tip to express the clotted blood. Normal saline irrigation was done repeatedly through a 10-mL syringe to flush out the blood. A light compression bandage was applied after making the shunt on both sides and was removed after 24 h. After the procedure, a mild compression dressing was placed and the patient was closely observed up for any serious bleeding or recurrence of turgidity. Glans puncture was left open as sutures. The opening spontaneously closed in 5–7 days of time.

This novel modification was used in 22 patients. The average time interval of onset of priapism and its management was 38 h (12–122 h range). All patients achieved complete detumescence immediately. Two out of 22 patients developed priapism again within 6–24 h and required penile implant placement. These two patients had priapism duration of 122 h and 104 h, respectively. A malleable prosthesis was placed on the 2nd day after the shunt procedure. The glans puncture site was first closed with 3-0 Vicryl suture. The previous shunt did not pose any problem in implant placement but due care was taken not to cross perforate through the glans penis.

Longer duration of symptoms is associated with a worse prognosis. Potency is likely to be preserved if venous stasis is relieved promptly and its recurrence prevented.[6] Raveenthiran reported a modification using a large bore needle. Multiple punctures were made in the tip of corpora cavernosa through the glans and the needle tracks functioned as temporary cavernoglandular fistula.[7] Our modified Winter's shunt is a novel approach for ischemic priapism and the results of this technique are highly encouraging.

Figure 1: Picture of suction drain set. Its metallic trocar was used to create the shunt

Figure 2: Clinical picture showing the technique of making the shunt with the trocar

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