Scrotal oedema: a misadventure of direct vision internal urethrotomy

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DESCRIPTION

A 30-year-old man presented with voiding lower urinary tract symptoms for 2 years due to bulbar urethral stricture. He had a history of appendectomy two and a half years ago during which he was catheterised. His retrograde urethrogram was suggestive of a short (<1 cm) bulbar urethral stricture (figure 1). After proper counselling, he was posted for direct vision internal urethrotomy (DVIU) under spinal anaesthesia. Immediately following the procedure, he developed scrotal oedema (figure 2). Perineal compression was given along with scrotal support. The patient was observed for 2 days in the ward; there was no increase in the oedema. He was subsequently discharged with an advice to keep a scrotal support and called on the 10th postoperative day. His oedema had completely resolved and his catheter was removed. He voided with a good flow rate of 27 mL/s and had a normal bell-shaped curve on uroflow with no residual urine. He was advised to do intermittent self-dilation two times per week. He is doing well 4 months after the procedure.

Sachse first described DVIU in 1974, and even in modern-day urological practice, it is among the most common procedures performed for bulbar urethral stricture disease. The most common technique followed is that originally described by Sachse, which involves cutting the scar tissue at 12 o'clock.[1] DVIU has best outcomes for urethral strictures that are <1 cm in length with minimal spongiofibrosis. The complication rate of DVIU is around 11%.[2] The most common complication reported in literature is perineal haematoma with an incidence in literature reported to be as high as 20% in some series. Scrotal oedema is reported to have an incidence of ~10%.[2]

Figure 2 Scrotal oedema that developed immediately after direct vision internal urethrotomy.

The most important thing for a urologist is to know how to prevent these complications. The complications tend to occur when DVIU is 'more than usually traumatic'. Measures that help to prevent complications include the following: (1) placing a guidewire before proceeding with DVIU; (2) cutting at 12 o'clock position to avoid injury to cavernosa; (3) small stepwise cuts by the knife that should be done under vision, avoiding deep cuts; (4) if a single incision is not opening the urethral lumen properly, then multiple radial cuts can be made; (5) the bulb irrigator used during DVIU should be used minimally and with gentle pressure (to avoid extravasation of irrigating fluid).[1 3] Scrotal oedema usually occurs because of extravasation of irrigation fluid due to a deep cut, and this was probably the cause in our case. If it at

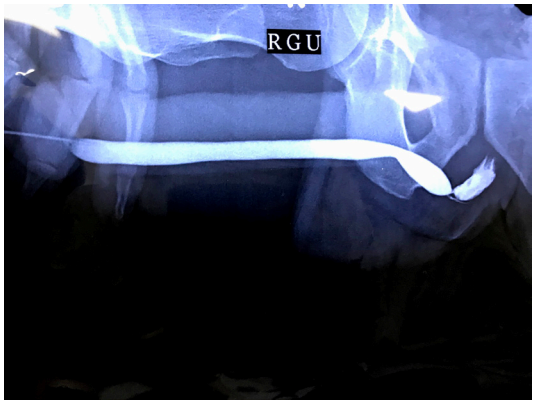

Figure 1 Retrograde urethrogram of the patient showing a short bulbar urethral stricture.RGU, Retrograde Urethrogram

Learning points

- Direct vision internal urethrotomy (DVIU) is one of the most common procedures for bulbar urethral strictures and is best suited for strictures <1 cm in length with minimal spongiofibrosis.
- Complications usually occur when the procedure is more than usually traumatic, and the best way to prevent them is to place a guidewire and proceed with small stepwise cuts under vision at 12 o'clock with minimal use of the bulb irrigator.
- Scrotal oedema after DVIU is mostly managed conservatively with scrotal support and perineal compression.

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all occurs, then conservative management with scrotal support and perineal compression usually is sufficient.

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