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POINT OF TECHNIQUE

The urethral instillation of depilatory cream for hair removal after scrotal flap urethroplasty

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Indications

Onlay-flap urethroplasty is the main treatment for long-segment anterior and posterior urethral strictures. Because of its good vascularity and mobility, a scrotal flap is effective [1,2]. This flap is useful especially in patients where the preputial and penile skin are not available, or cannot be used because the patient had been circumcised or has balanitis xerotica obliterans [3]. Many patients in India are chronic chewers of tobacco or betel nut with lime, resulting in oral leukoplakia (a premalignant condition) and oral submucosal fibrosis, making it difficult to harvest the buccal mucosa [4]. One of the main problems of using a midline scrotal flap is its tendency for hair growth, which results in encrustation, recurrent UTI and calculus formation. Different methods of scrotal depilation have been reported, including simple shaving, superficial local radiotherapy, external (e.g. fine grasping forceps) or direct electrolysis of the hair root and photocoagulation with a Nd:YAG surgical laser [5,6]. We describe a technique of chemical depilation using the urethral instillation of depilatory cream.

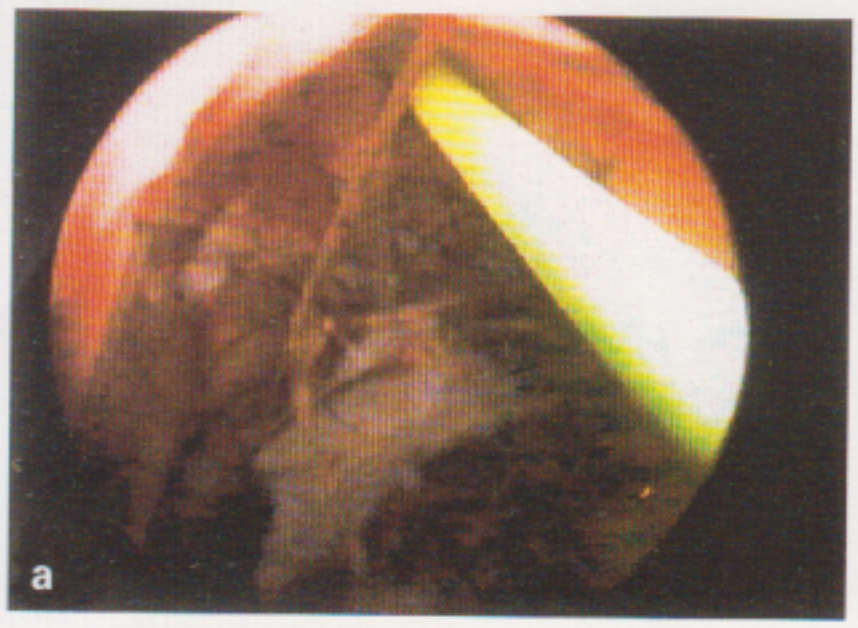
Patients and methods

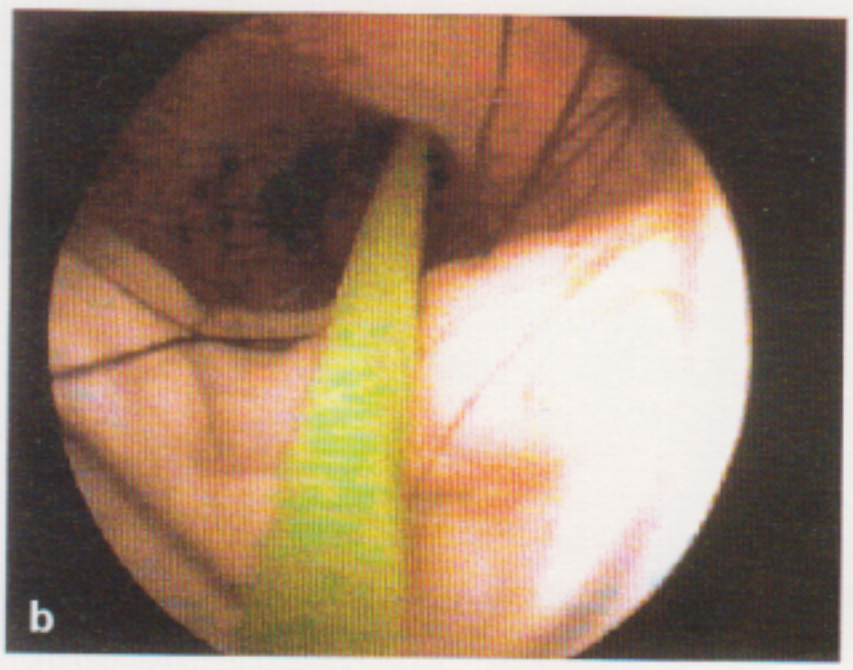
Between 1993 and 1999, 25 patients underwent midline septal scrotal flap urethroplasty at our institute; they were followed for a mean (range) of 34 (6–72) months. Three months after the urethroplasty the patients underwent cysto-urethroscopy under anaesthesia to assess the flap, anastomotic calibre and presence of hair growth. Patients in whom cysto-urethroscopy showed significant hair growth then underwent chemical depilation by urethral instillation of depilatory cream. A proprietary cream was used, containing calcium thioglycollic acid as the active ingredient. Calcium thioglycollate acts on the keratin of the hair, breaking the disulphide bonds, causing the hair fibre to swell, become weak and finally break off at its base, leaving the hair follicle [7]. The cream (5 mL mixed with 5 mL viscous lignocaine, 2%) was instilled urethrally through a 10 mL syringe. The external urethral meatus was then held clamped with the fingers for 10 min and the urethra gently massaged, allowing the cream to spread along the entire surface of the urethra. All the depilated hair was then subsequently passed during voiding. Patients then underwent cysto-urethroscopy to assess the success of depilation. The patients were taught how to instil the cream, and did so once a month for 3 months. Patients were then followed up initially with 6-monthly urine culture, uroflowmetry and cysto-urethroscopy under local anaesthesia for the first 3 years, and then yearly. Three patients had proximal anastomotic narrowing which was treated with balloon dilatation, while one patient had submeatal stenosis which required an Otis urethrotomy.

Not all scrotal flaps have a tendency for hair regrowth [1] and hence depilation was used only in patients with hair re-growth detected cysto-urethroscopy, avoiding unnecessary treatment in other patients. In the present series of 25 patients, only 16 required depilation, while nine showed no significant hair growth. Of these 16 patients, 12 required a total of four instillations, two required six and two required eight instillations. Four patients with a follow-up of >5 years have required no depilation over the last 3 years.

Advantages and disadvantages

The urethral instillation of depilatory cream is simple to perform and can be learned by the patient for later self-instillation. The cost involved is small and there is no need for any special equipment or for anaesthesia. Except for mild immediate dysuria there were no significant side-effects. Hair depilation was effective in all 16 patients, as confirmed by cysto-urethroscopy after instillation (Fig. 1). Cysto-urethroscopy 6 months later showed no hair re-growth in 12 of the 16 patients, while only four





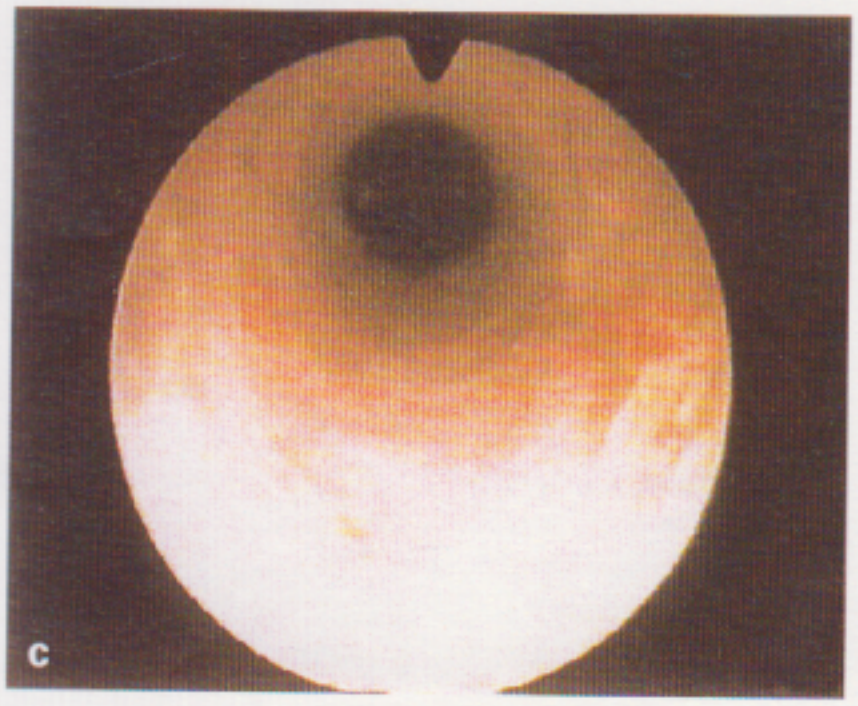


Fig. 1. Urethroscopic view (6 months after urethroplasty) showing the skin **a**, before **b**, immediately after and **c**, 3 months after the instillation of depilatory cream.

required further instillations. Also, the bladder and urethral mucosa, and the flap, showed no inflammation. Because it is carried out after urethroplasty, this technique requires strict patient compliance.

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