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SURGERY

Managing urethral strictures after hypospadias repair

Urethral strictures are a common complication of hypospadias repair surgery in children, but relatively few studies have investigated the optimum approach to managing this occurrence. As strictures often recur, the best choice of secondary treatment is also an important consideration. In a paper published in the *Journal of Pediatric Urology*, Patricio Gargollo and colleagues present their 10-year experience of managing post-hypospadias urethral strictures, and compare the success rates of less-invasive interventions (direct vision internal urethrotomy [DVIU] or dilation) versus surgical urethroplasty for the treatment of initial and recurrent strictures.

Between 1997 and 2007, 2,273 patients underwent hypospadias repair at the authors' institution, of whom 73 required treatment for postoperative urethral stricture. 15 additional boys were referred for stricture treatment from other centers. The mean duration of follow-up was 74 ± 50 months for the DVIU or dilation group and 81 ± 63 months for the urethroplasty group.

Of the 88 patients who required treatment for urethral stricture, 39 underwent DVIU or dilation and 49 underwent surgical urethroplasty.

The success rate for initial DVIU or dilation was 38% (15 of 39 patients), compared to 53% (26 of 49 patients) for urethroplasty. For patients who required further treatment for stricture recurrence following initial DVIU or dilation, a repeat of the same procedure was significantly less successful than urethroplasty (17% versus 67%, $P = 0.03$).

The authors also analyzed the success rate of DVIU or dilation versus urethroplasty according to stricture location: proximal (penoscrotal, scrotal or perineal), midshaft, or distal (glanular to subcoronal). Urethroplasty was significantly more successful than less-invasive approaches in patients with distal strictures (52% versus 12%, $P = 0.02$), whereas the success rates did not differ in those with midshaft or proximal strictures.

The authors conclude that a second DVIU or dilation procedure following failure of the first is highly unlikely to be successful, and definitive surgical urethroplasty should be undertaken instead—a finding that is consistent with previously published data regarding stricture repair in adults. Initial less-invasive management seems to be most suitable for proximal or midurethral strictures, but distal strictures are best managed with urethroplasty.

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