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RESEARCH ARTICLE

RE DO ANASTAMOTIC URETHROPLASTY FOR POST TRAUMATIC BULBAR URETHRAL STRICTURE IN 8 YEAR BOY

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ABSTRACT

Urethral strictures in children are rare. Their incidence is not reported even in text books. Even institutions with 32 years of practice have experienced only a few cases. Principles we use for adult strictures is followed for children. Most of strictures in children are due to trauma. Most common strictures are Posterior urethral distraction Defects. The posterior injuries are difficult to manage than in adult. Incidence of incontinence and impotence higher than adult injuries. The anterior urethral injuries are commonly due to urethral instrumentation. Straddle injuries are very uncommon, as in this patient. Can be managed effectively like adult injuries.

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INTRODUCTION

Post traumatic bulbar urethral injuries are rare in children. The perineum is confined and protected in children. Post traumatic urethral injuries are usually associated with pelvic fracture and involve the posterior urethra (membrano - prostatic junction). Anterior urethral injuries are usually iatrogenic. Usual causes are urethral instrumentation, circumcision and surgeries for anorectal malformation. Unlike posterior urethral injuries the surgery and outcomes are better. In posterior urethral distraction defects the prostate remains high up than in adult injuries and usually a trans-pubic approach is needed. Whereas the bulbar urethral strictures are usually approached by perineal incision as in adults. Regarding outcome, although the success in establishing continuity may be same (88-90 %) following anastamotic urethroplasty. There is high morbidity in posterior urethral injuries due to associated neurovascular injuries, higher than in adult posterior urethral distraction injuries. Incidence of incontinence and erectile dysfuntion are more. The neuro vascular elements are preserved in bulbar urethral injuries.

Case presentation: The patient is an 8 years old boy with a known history of stricture urethra on suprapubic urethrostomy. The nature of injury is very peculiar.

*Corresponding author: Dr. Kabilan Saminathan. MS, MCh Consultant urologist, Department of urology, Dr. Mehta's hospital, Chennai, Tamilnadu, India He was running and playing on a wall in the veranda. There were large water drums placed by the side of wall. While playing he slipped and fell. He fell down with perineum landing on the edge of a large water drum causing straddle injury. He had bleeding per urethra and developed acute urinary retention. The boy was taken to a nearby urology clinic elsewhere where a suprapubic cystostomy was done. Later, after 3 months urethroplasty was done through perineal approach elsewhere. This happened 1 year back. But the patient was not able to void after removing the urethral foley and so the suprapubic catheter was retained. Again, 2 months ago optical internal urethrotomy was attempted unsuccessfully. The patient was seen in my OPD with a supra pubic catheter. He gives history of recurrent fever. The urine via the suprapubic catheter was turbid. On examination there was a perineal scar. Suprapubic catheter was changed and urine culture done. Culture grown Klebsiella species. A week course of meropenem was given. Repeat culture was negative for growth and urine clear. Ultrasound evaluation done, the kidneys and ureter were normal. Voiding cystourethrogram and Ascending urethrogram were done for stricture assessment. There was a blind ending stricture at the mid bulbar urethra. In Voiding urethrogram the bladder showed mild irregular outline with good capacity. The bladder neck appeared normal. But there was no filling of the posterior urethra. Under general anesthesia urethroscopy and suprapubic scopywere done using 10F paediatric cystoscope. Blind ending stricture present at the bulbar urethra.

On Suprapubicscopy multiple (2-3) calculi of size 8mm-10mm were seen in the prostatic urethra. The scope can be negotiated beyond the verumontanam. With the tip of cystoscope in the prostatic urethra diluted contrast was instilled via the irrigation channel and observed under fluoroscopy. Prostatic urethra was delineated with stones visible as filling defects. The contrast also filled the proximal 1-2 cm of bulbar urethra. The stones were broken with laser and retrieved with basket. Later, after a week the patient was taken up for an anastomotic urethroplasty. He was placed in lithotomy position with rolled towels under the thighs. The perineum was explored via the previous incision. Planes were not clear due to previous surgery. The bulbar urethra was identified and dissected upto the penoscrotal junction. Scarring present due to previous surgery. Stricture with dense fibrosis was seen in the proximal bulbar urethra extending 2cm proximally. All the peri-urethral scar tissues were excised. The 2 cm long stricture was excised and edges were spatulated. The cut edges were bleeding. To enable a tension free anastomosis corporal bodies were separated. And an anastomotic urethroplasty done using 3 'O vicryl suture over a 12 F urethral foley catheter. A small suction drain was placed, which was removed after 48 hours. Mild wound infection was present, post operatively which resolved with antibiotic treatment. After 4 weeks urethral foley catheter was removed and Voiding cystourethrogram carried out. The flow was good. The anastomosis was wide. Dilated prostatic urethra was seen. A small extravasation present at 6 O' clock position. The suprapubic drainage was maintained for a week. After which voiding via Naturalis started after clamping the suprapubic catheter. The Suprapubic catheter removed after 4 days. Uroflow and post void residual urine checked before removal. Follow up with uroflow and residual urine estimation done at 3 months and 6 months. A check cystoscopy done at 1 year showed a patent wide anastomotic site.

Conclusion

Post traumatic bulbar urethral strictures in children though rare can be managed well by similar way to that of adult injuries. The procedure requires proper evaluation, meticulous dissection with excision of scar tissue and tension free anastomosis.

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