

Transvesical Fulguration of Posterior Urethral Valves—A Case Report

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Transurethral fulguration of neonatal posterior urethral valves (PUV) is often not possible in many centers in India due to the lack of adequately small cysto-urethrosopes. We have avoided urinary diversion in one neonate by fulgurating the valve transvesically using a 14F resectoscope.

Key Words : Posterior urethral valves, transvesical fulguration.

Many techniques have been described for early intervention of PUV like endoscopic transurethral fulguration, laser ablation, antegrade extraction of balloon catheters, use of valvotomes etc.¹

In neonates due to the unavailability of smaller scopes perurethral fulguration is not possible and surgeons resort to vesicostomy or a proximal urinary diversion as a last resort to save the life of the child. The technique described here deals with primary management of PUV through transvesical fulguration.

Case Report

A 5-day old baby boy weighing 1.9 kg was admitted with dribbling of urine, vomiting, decreased urine output and dehydration. The bladder was palpable and imaging studies (ultrasonography abdomen and voiding cysto-urethrograms) confirmed the diagnosis

of PUV with back pressure changes but no vesicoureteric reflux (VUR). The serum creatinine at admission was 1.7 mg/dl and blood urea 85 mg/dl. After catheterisation and resuscitation the baby underwent surgery. As no scope could be negotiated perurethrally, a transvesical fulguration was carried out. The bladder was opened through suprapubic approach (Fig 1). A No 10.5F cystoscope was introduced antegrade into the dilated posterior urethra, and the valves were visualized (Fig 2). Following this the valves were ablated with 14F resectoscope, under guidance of a perurethrally placed infant feeding tube to prevent urethral injury.² The perurethral catheter was removed and a 12F Malecot catheter was placed before closing the bladder. The postoperative period was completely uneventful. On follow up the baby is clinically well, voiding well, has gained weight and has no urinary infection.

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Fig 1 : The cystoscope being introduced transvesically

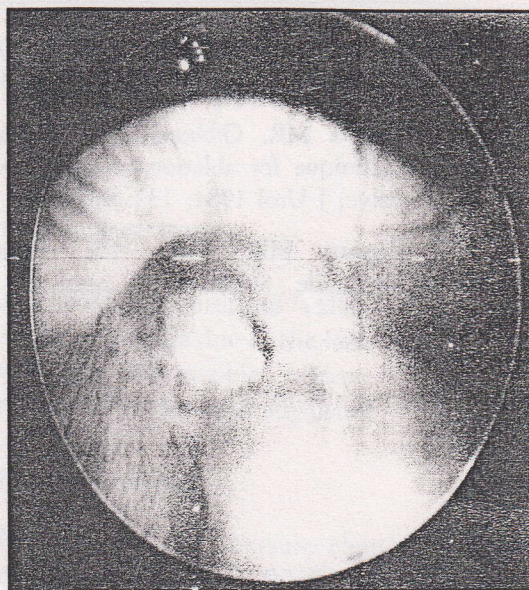


Fig 2 : The valve seen transvesically, with the tip of the infant feeding tube seen in the center.

There is good resolution of the back pressure changes on USG and the posterior urethra is less dilated on the VCU.

Discussion

PUV are one of the most common urological problems in the pediatric age group. Prenatal diagnosis is possible. But in many centers in India, postnatal management is severely compromised by the general non-availability of small size scopes, thus forcing the surgeons to perform a diversion even in cases where a fulguration would have sufficed. Forced passage of scopes through the small neonatal urethra will result in

iatrogenic urethral injury and resultant stricture.^{3,4} We have found transvesical fulguration of the valves satisfactory in that it reduces the possibility of urethral or sphincter injury, combines the advantages of early optimal drainage, avoids any anterior urethral instrumentation and is a technically easier, reliable and safe approach to valve destruction^{1,5,6} even while using a 14F resectoscope.

Conclusion

Transvesical fulguration of PUV can be carried out safely and effectively in newborns even with relatively larger sized scopes.

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