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Reconstructive Urology
Case report

Severe congenital penile torsion with anterior urethral diverticulum: A case report

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Double Breasting;
Correction of penile torsion

Abstract
Introduction: We present a rare case of severe penile torsion of 180° along with giant congenital anterior urethral diverticula. Presentation of these two rare anomalies together is extremely rare and has not been reported yet. The extreme rarity of the case and its management warrants this presentation.
Observation: A 5 years old boy presented to us as a case of epispadias with post-void dribbling and wetting of the underwears. On examination, he was found to be a case of severe congenital penile torsion with diversion and rotation of median raphae in a counterclockwise fashion upto the midline dorsally confirming 180° torsion. During voiding, there was appearance of a swelling in distal penile region with passage of urinary drops while compressing it. Micturating cystourethrogram showed diverticula in penile and bulbar urethra. Torsion was completely corrected by penile de-gloving in a plane between two layers of buck fascia and mobilization of the urethra along with spongiosum proximally upto the penoscrotal junction and distally upto the glans. Diverticula was laid open and underwent urethroplasty along with double breasting of thickened diverticular tissue. Torsion was completely corrected after surgery. Post-operative recovery was uneventful. Urine culture was sterile and uroflowmetry showed maximal urinary flow of 12 ml/s at 3 months postoperatively.
Conclusions: Penile de-gloving and adequate urethral mobilization corrects the severe penile torsion of 180°. Correction of severe torsion and urethroplasty is feasible in a single stage with good results.

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Introduction

Severe congenital penile torsion is rare and its association with anterior urethral diverticula has not been reported to the best of our knowledge. The incidence and various techniques for correction of penile torsion with their advantages and disadvantages are reported in the literature [1–8]. The new simplified technique of penile de-gloving and urethral mobilization along with spongiosum, corrects even the severe penile torsion [4]. Both of the congenital anomalies were treated in a single stage with good functional as well as cosmetic results. The extreme rarity of the case and its simplified correction in a single stage warrants the reporting.

Case report

A 5 year old male boy presented to us as a case of epispadias. Parents complained of appearance of swelling on the dorsal aspect of penis during voiding, stream pointing backwards falling on the thighs and post void dribbling with wetting of the underwears since birth. On examination, he was found to be a case of severe congenital penile torsion with counterclockwise rotation of median raphae up to the midline dorsally confirming 180° torsion (Fig. 1A). The meatus was seen dorsally on retraction of the prepuce (Fig. 1B). During voiding, there was appearance of a swelling on the left dorso-lateral aspect of the distal penis with urinary stream pointing backwards between the thighs (Fig. 1C) and there was dribbling of urine on compressing the area after micturation. Urine examination showed 2–3 pus cells/HPF. Renal functions were normal. Ultrasonography of abdomen showed normal upper tracts and bladder wall with insignificant post void residual urine. Micturating cystourethrogram showed diverticula on dorsal surface of penis. The angle between proximal normal urethra and diverticular wall was obtuse, which was more in favour of diverticula (Fig. 1D). The patient was planned for reconstructive surgery in a single stage. Penile de-gloving was done through circumferential subcoronal incision in subdartos plane upto the root of penis. Torsion persisted even after this. Then the urethra along with spongiosum was mobilized proximally upto the penoscrotal junction and distally upto the glans. This corrected the torsion completely (Fig. 2A). Then the diverticula was laid open and urethral mucosal lining was separated from overlying thickened diverticular wall (Fig. 2B). Urethroplasty along with double breasting of thickened diverticular wall over a 6 Fr infant feeding tube was done (Fig. 2C and D). A third layer of dartos was used to cover the urethral tube and then skin was closed as a fourth protective layer (Fig. 2E).

Postoperative course was uneventful. Penile torsion was completely disappeared. Feeding tube was removed on 10th postoperative day. Patient voided well with good stream. Patient was followed up at 1, 3, 6 and 12 months. At 3 month, Urine culture was sterile and uroflowmetry showed maximal urinary flow of 12 ml/s.

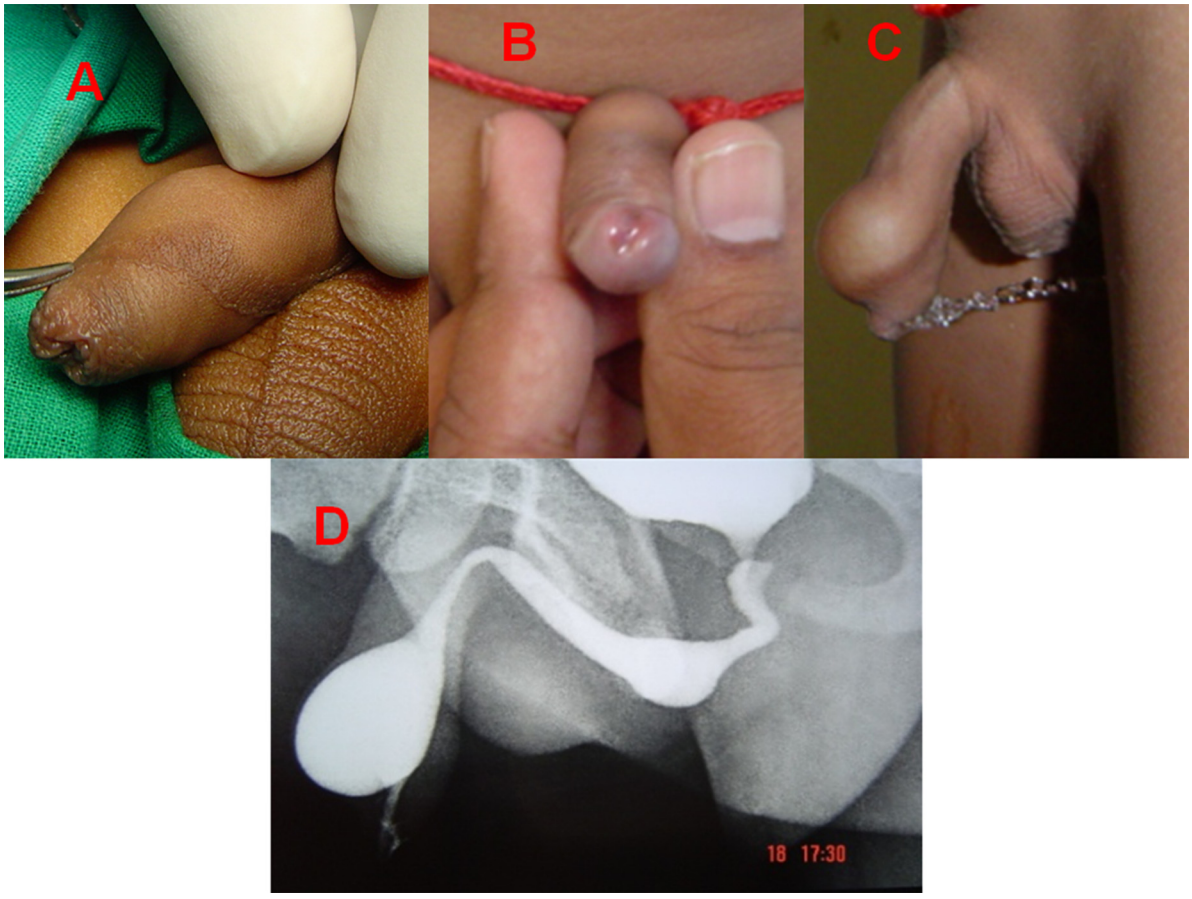

Figure 1 **Figure showing penile torsion and diverticula**. (A) Showing end of median raphae dorsally midline. (B) Showing the meatus on dorsal side. (C) Showing penile swelling on dorsal surface of penis and urinary stream directed posteriolly between the thighs. (D) Showing the micturating cystourethrogram with anterior urethral divertidula on the dorsal side of penis.