

Urethral Duplication II-A Y Type with Rectal Urethra -Posterior Sagittal Approach for Single Stage Repair



Medical Science

KEYWORDS : Urethral duplication, Ventral urethra, Dorsal urethra, Y type UD.

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ABSTRACT

Urethral duplication is rare congenital anomaly and y type is rarer. 325 cases are reported till date. No definite operative procedure are present till date. We present Y type UD and single stage procedure.

INTRODUCTION

The Y-type urethral duplication (YUD) is a rare congenital anomaly, constituting 6-30% of all urethral duplications (UD).[1] The Williams and Kenawi had classified UD as epispadiac, hypospadiac, spindle, and YUD. According to Effmann's classification[1,2], YUD is categorized under type IIA2 anomaly [Figure 1]

Till date, there is no definitive management strategy for YUD. Here, the author discussed their management strategy with discussion and relevant review of the literature.

CASE REPORT

Follow up case of Low anorectal malformation (eight month old boy) presented to us with complaint of passing urine per anum since birth . His physical examination was normal except for urine coming from anus.. Examination under anaesthesia revealed opening in anterior wall of rectum approx 1cm proximal to anal verge (fig.2). Opening in penile shaft was blind ending and it was extending upto base of penis with no communication to bladder (fig.3).

How I do it

Eight month old boy was planned for single stage urethroplasty under GA.

Bowel was prepared with PEGLEC to prevent post operative contamination. Patient was kept in prone position for mobilization of urethra and then lithotomy for anastomosis(fig3). Incision was made posteriorly midline . Mobilization of Ventral urethra was done as vascularised flap from rectum(fig4) and it was comfortably done upto perineum. Dorsal urethra was patent and of wide caliber upto penoscrotal junction(fig5). Anastomosis of dorsal and ventral urethra was done with vicryl 6-0 suture on urethral stent. Stent was removed on postoperative 21 days. MCU was done(fig6), which shows no fistulae. Urethral calibration was done and result was excellent(video1).

Discussion

The options for management of YUD are: (i) Anterior mobilization of fistulous tract, its anastomosis to midline scrotal skin tube, laying open of OU in first stage followed by penile urethroplasty in second stage;[3]

- (ii) laying open of OU, transposition of rectal urethra to the perineum in first stage followed by staged construction of OU;[4]
- (iii) covering colostomy, lengthening of ectopic rectal urethra (by strip of anterior anorectal wall), reconstruction of OU in first stage followed by scrotal skin tubularization (for mid urethra), securing of whole urethra in continuity, and colostomy closure in second stage;[5]
- (iv) progressive augmentation by dilation of the urethra anterior' (PADUA);[6]

- (v) mobilization of VU to the penoscrotal junction, tubularization of mid scrotal skin flap (bulbar and membranous urethra) and preputial flap (for penile urethra) in single stage.

We prefer to do in single stage. Adequate mobilization of rectal urethrae as vascularised flap was done. Dorsal urethrae was also mobilized upto perineum and anastomosis was done in perineum on urethral stent. No diversion of bowel was done .Result was excellent(video1).

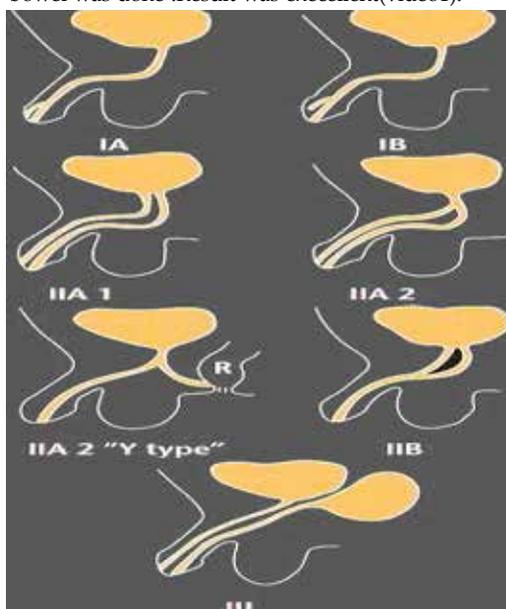


Figure 1



Figure 2



Figure 3



Figure 4



Figure 5

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