GENITOURINARY MOBILIZATION WITH VESICOVAGINAL FISTULA REPAIR

Synopsis of Video
In this video presentation, combined repair of urethral and genital defect is demonstrated together with repair of congenital vesicovaginal fistula, in a rare entity of urogenital sinus.

Hypothesis / aims of study
Urogenital sinus is a rare anomaly\(^1\). Sometimes, is associated with cloacal anomaly or high imperforate anus. In rare instances, it is associated with urogenital fistula\(^2\).

This video presents stepwise demonstration of reconstruction of a complex pathology affecting the urinary and genital tracts.

Study design, materials and methods
7-year old female with history of repair of high imperforate anus, presented with urogenital sinus and vesicovaginal fistula. Cystogram demonstrates fistulous communication between the bladder and vagina. MRI confirmed the presence of fistula. Cystoscopy was performed via suprapubic tract. A blind ending bladder neck was viewed and bladder capacity was accepted. Via a Pfannensteil incision with complete mobilization of the bladder was the first step. Next, bladder neck was completely mobilized. After the bladder was completely bivalved, the fistulous tract could be reached. A half circle dilator was put in the bladder neck. Incision is made at the proposed site of the external meatus and after complete excision of the fibrosed segment; the dilator could easily pass to the perineum. Excision of the perineal skin and atretic lower end of the vagina recovered the continuity of the genital tract. Further dissection of vaginal and perineal tissues followed, on order to have an interoitus of normal caliber. Posterior perineal flap vaginoplasty was carried out. Exteriorization of external urethral and vaginal openings is then achieved, using 4/0 PDS. Fistulous opening in the vaginal wall was closed, followed by closure of the bladder wall in layers. Closure of the wound followed, leaving suprapubic tube, urethral catheter and 2 ureteric stents.

Results
Six months after surgery, the child enjoyed patent urethra and vagina. She is maintained on CIC with complete dryness in between caths. Vaginal lumen is proportional to her age.

Concluding message
One stage reconstruction of urogenital sinus is feasible and successful. Awareness of different surgical techniques that could be used simultaneously, efficient anaesthetic performance and meticulous follow up are mandatory prior to embarking on one stage repair.

References