

BIPEDICLED ANTERIOR DETRUSOR FLAP IN THE MANAGEMENT OF TOTAL URINARY INCONTINENCE

Aim of the Study

Correction of total urinary incontinence remains a surgical challenge. Several surgical procedures have been used with varying degrees of success, including both anterior and posterior bladder tubes. In this work, we present a modified technique of the anterior detrusor tube repair previously published by D. I. Williams (1) in 1976 for the treatment of total urinary incontinence in both adults and children.

Methods

Two longitudinal anterior bladder wall incisions 5 cm long were made starting distally at the bladder neck. Both medial edges of the incisions were sutured together into a tube over a 16 Fr. Fooley's catheter. Posterior edge of the bladder neck is transversely incised. Both lateral edges of the longitudinal incisions were sutured together dorsal to the created tube down to the trigone to close the bladder cavity. The pyramidalis muscle was then mobilised in one side proximally, passed behind the tube and sutured to the other side, to prevent prolapse or kinking of the tube. Six patients (5 males and 1 female) aged 12 to 46 years with total urinary incontinence due to pelvic trauma or neurogenic diseases, underwent the procedure. Peri-urethral catheter ascending urethrogram was done to confirm integrity of the new tube. Multichannel urodynamic study including uroflowmetry and pressure-flow study were performed 3 months post-operatively to document outcome of the procedure.

Results

Operative time ranged between 80 and 110 minutes (mean 92 minutes). No major intra or post-operative complications were met. The patients were followed for 4 to 12 months (mean 10.4 months). The catheter was removed after three weeks in five patients, and kept for four weeks in one patient due to prolonged leakage. Multichannel urodynamic study revealed adequate infra-vesical resistance with fair emptying of the bladder. All of the patients were completely dry post-operatively during the follow-up period. Two patients had mild urgency and increased frequency. This may be due to reduced bladder capacity.

Conclusions

Bipedicled anterior Detrusor flap is a safe, simple, and easy to perform technique for the management of total urinary incontinence. It is associated with high success rate. However, long-term follow-up is still required to confirm its high cure rate.

1. Williams D I, and Snyder H. Anterior tube repair for urinary incontinence in children. Br J Urol, 1976: 48; 671-674.