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UNIQUE MANAGEMENT OF A URETHRAL ATRESIA

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An 8 month girl with history of sacro-coccygeal teratoma excised in the neonatal period presented with urinary incontinence not controlled by Clean Intermittent Catheterisation (CIC). At cystoscopy she was found to have urethral atresia and a urethro-vaginal fistula. An attempt at urethroplasty was unsuccessful as the distal urethra was too short to mobilse to meet the proximal segment. As the bladder neck had been mobilised extensively during the procedure it was bought up to the anterior abdominal wall as a vesicostomy.

Over time it became clear the vesicisotomy was “continent” and with the aid of CIC she was completely dry during the day with some developmentally appropriate wetting overnight.

At 7 years of age she started having some leakage from the vesicostomy, which caused distress and embarrassment.

A novel surgical procedure was proposed to attempt to re-establish a continence mechanism. An incision was made around the vesicostomy stoma with short lateral extensions. Thestoma was mobilised down to the bladder wall. Both sides of the rectus muscles were mobilised up and down and each was split longitudinally. The medial parts of the split rectus muscles were crossed over and the vesicostomy bought through the middle. The rectus muscles were sutured in place, the fascia was closed and the stoma refashioned. At 2 year follow up the girl reports is dry day and night dry and is managing CIC via the vesicostomy. Repeat urodynamics and ultrasound have been unremarkable.

The crossing of the rectus muscles causes a “crossing tram line" effect. The effect works by creating an increased external pressure zone on the bladder neck - in this case the stoma - similar to a natural sphincter.

This is a novel procedure to achieve continence in a vesicostomy stoma. It may have wider applications for continence management.