AB014. Robot-assisted urethrolysis and fistula repair post incontinence surgery

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Background: Robotic surgery has a paramount role in the management of complex urogynaecological cases as outlined by this video.

Methods: We present the case of a 35-year-old who was referred from another institution. Three years previously she underwent insertion of a tension-free vaginal tape (TVT TM) for stress incontinence which was complicated by mesh exposure into the vagina, and the vaginal portion of the tape was subsequently removed. Following removal, she developed de novo OAB (overactive bladder) symptoms and recurrence of stress incontinence. A second TVT was inserted, this was removed one month later due to severe pain and exposure into the urethra. Three months later, she underwent insertion of a rectus fascia sling, but due to pain, continuous vaginal bleeding, abdominal wound breakdown and urinary retention this sling were also removed after six weeks. Her OAB symptoms and stress incontinence worsened and she required intermittent self-catheterisation (ISC) to empty her bladder. The patient reported feeling worse than ever and found ISC very difficult to perform. This is on a background surgical history of two previous caesarean sections, a total abdominal hysterectomy and an abdominoplasty. At initial presentation she complained of severe pelvic pain, OAB, voiding difficulty, recurrent urinary tract infections, and debilitating stress incontinence. A cystoscopy and examination under anaesthesia were performed, revealing a hyper-elevated urethra that was rigid and drain-pipe like with no mobility. There was a small urethro-vaginal fistula at the distal end of the urethra. However, there was no evidence of mesh erosion into the urethra or the bladder. Following discussion, a combined vaginal and robotic approach was proposed to excise the retro-pubic portions of the TVTs, urethrolysis, and repair the fistula. During surgery, the retro-pubic portions of both tapes were identified and removed using a robotic approach. Subsequently, the urethra was released bilaterally, increasing its mobility. A robotic approach permitted for ease of dissection and good haemostasis. The subsequent vaginal approach consisted of identifying the extent of the fistula. The fistulous tract was dissected and the defect closed in layers, a Martius flap was placed under the mid urethra to increase the tissue bulk and reduce the risk of recurrence.

Results: A catheter was left in situ for 14 days, and post-op recovery was uneventful. The catheter was removed and a micturating cytogram showed no extravasation of the dye and an intact urethra. The patient reported a marked improvement in her OAB symptoms and resolution of her pain.

Conclusions: With the increasing number of complex urogynaecology cases in the clinical setting, the robot-assisted approach allows for meticulous dissection and excellent access to retropubic space. At the same time, reducing hospital stay, and quicker recovery.

Keywords: Robotic surgery; fistula; Martius flap