

#165

MANAGEMENT AND OUTCOMES OF URETHROVAGINAL FISTULA REPAIR

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Introduction

- Urethrovaginal fistula (UVF) is a rare finding in clinical practice, particularly with recent improvements in obstetric care.
- There is a paucity of literature on the management and outcomes of this condition.
- As a specialist referral centre for Genitourinary Fistulae we sought to assess our cohort of patients with urethrovaginal fistula to evaluate the management and outcomes for patients with this condition.

Methods

- Prospective database of patients with Genitourinary fistulae at a single institution.
- Interrogated to identify patients with UVF over an 11 year period (March 2004 – May 2015).
- Data collected: Demographics, Aetiology of UVF, operative intervention, outcomes and post-operative continence.
- 24 patients identified:
 - Median age 53.3y (range 26-78y)
 - All patients had pre-operative VUDs (except 2 with concurrent VVF) and peri-operative cystourethroscopy.
 - Patients with post-operative incontinence underwent repeat VUDs.

Results (1)

- The aetiology of UVF in our cohort is outlined below in Table 1 – the majority were iatrogenic in nature.

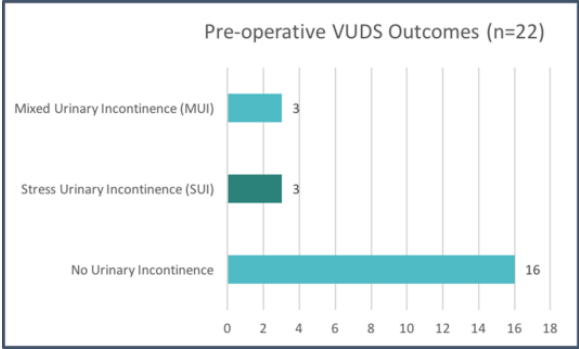
Aetiology of UVF	Number of patients (%)
Mid-urethral tape (MUT) for Stress UI (SUI)	12 (50)
Excision of urethral diverticulum	4 (16.7) *
Untreated urethral diverticulum	2 (8.3)
Excision biopsy of vaginal tumour	2 (8.3)
Cystoscopy	1 (4.1)
Excision of ectopic ureter	1 (4.1)
Bladder neck reconstruction	1 (4.1)
Obstructed labour	1 (4.1) **

* n=1 concomitant vesicovaginal fistula (VVF)

** n=1 concomitant VVF

Results (2)

- 1 patient had a complex urethro-vesico-vaginal fistula which had occurred after obstructed labour requiring bladder neck closure with clam ileocystoplasty and mitrofanoff channel formation.
- She is continent with a functional, catheterisable channel at 13y follow up.
- 23 (95.8%) of patients underwent vaginal repair of UVF with modified martius fat pad interposition.
- All (100%) had successful anatomical closure.
- The pre-operative continence outcomes of these 23 patients are shown in figure 1 below:



- The post-operative continence outcomes are shown in figure 2 below (all interventions successful except TVT-O as marked):

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graph TD
    A[Post-operative Urinary Incontinence 9/23] --> B[Pre-existing UI 6/23]
    A --> C[New-onset UI 2/23]
    B --> D[Stress Urinary Incontinence 3/6]
    B --> E[Mixed Urinary Incontinence 3/6]
    C --> F[Stress Urinary Incontinence 2/2]
    D --> G[Rectus fascial sling 2/3]
    D --> H["TVT-O 1/3 *"]
    E --> I["Rectus Fascial Sling + Sacral Neuromodulation 1/3"]
    E --> J["Rectus Fascial Sling + Botulinum Toxin 2/3"]
    F --> K[Laparoscopic Colposuspension 2/2]
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* TVT-O failed

Conclusions

- In our cohort aetiology of UVF is commonly iatrogenic following vaginal surgery.
- **Vaginal repair** of UVF is possible in **95.8%** of cases with **100% anatomical closure success rates**.
- In complex cases bladder neck closure and continent urinary diversion is a viable alternative.
- **Post-operative urinary incontinence** occurs in **34.8%** and requires surgical management with success rates of 87.5%.