

C26 Evaluation and Treatment of Ejaculatory Duct Obstruction – UK single centre experience

A KATELARIS¹, G CHIRIACO¹, K RANDHAWA¹, V MODGIL¹, A MUNEEER¹, DJ RALPH¹, P SANGSTER¹

¹ University College Hospitals London NHS Foundation Trust

INTRODUCTION

- Ejaculatory duct obstruction (EDO) remains a rare but surgically correctable cause of haemospermia, pain and male infertility diagnosed in 1–5% of infertile men.
- EDO maybe congenital or acquired. Congenital causes include congenital atresia or stenosis of the ejaculatory ducts, utricular or diverticular cysts. Acquired causes include secondary to seminal vesicle calculi, following transurethral surgery, history of indwelling urethral catheter and following urethral trauma.
- EDO may present with infertility, decreased force of ejaculation, pain during or after ejaculation, haemospermia and decreased ejaculatory volume. Patients may also present with a history of symptoms suggestive of prostatitis or epididymitis including perineal pain, dysuria or back pain.

AIMS

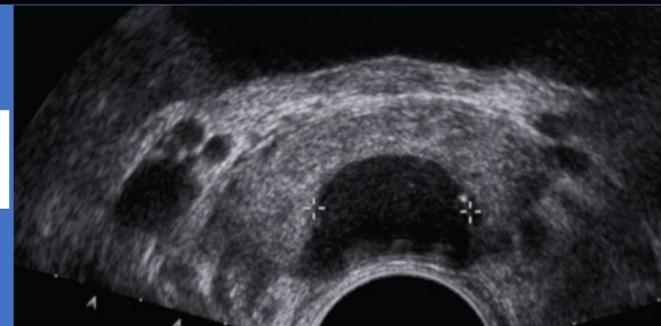
- To determine the presentation of ejaculatory duct obstruction.
- To evaluate the treatment outcomes of ejaculatory duct obstruction by TURED.

METHODS

- A retrospective analysis of 62 patients diagnosed with EDO over 16 years was performed. Mean patient age was 36 years (range 24 to 64 years).
- Patients were evaluated by history, clinical examination, trans-rectal ultrasonography (TRUS) and semen analysis if indicated. Patients presenting with infertility had full hormonal and genetic profile performed.
- All patients underwent transurethral resection of ejaculatory ducts (TURED) for ejaculatory duct obstruction.
- Thirty-two patients presented with infertility; all underwent TURED.

Figure 2

TRUS scan showing appearances of prostatic midline cyst.



RESULTS

Causes of EDO included congenital midline cyst in 38 (61%), calculi in 12 (19%) and idiopathic in 12 (19%)

Presenting symptoms

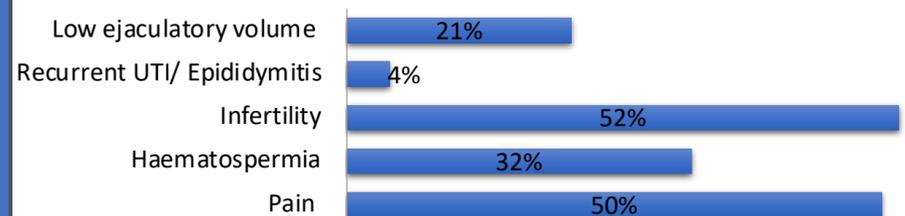


Figure 3: Primary presentation of EDO. NB: some patients had more than 1 presenting feature.

Impact on symptoms

TURED was found to resolve haemospermia in 87% of patients presenting with this symptom alone. 67% of patients reported complete resolution of symptoms.

Impact on seminal parameters (Table 1)

TURED is shown to improve volume, concentration and motility on semen analysis. In EDO due to prostatic cysts TURED led to statistically significant improvements in concentration and motility (p=0.011) in patients presenting with infertility.

| | Volume (ml) (Mean ± SD) N=22 | Conc (x10 ⁶ /ml) (Mean ± SD) N=20 | Motility (%) (Mean ± SD) N=21 | pH (Mean ± SD) N=12 |
|-------------------|------------------------------------|--|-------------------------------------|---------------------------|
| Pre- intervention | 0.9 ± 0.9 | 5.1 ± 12.0 | 17.2 ± 18.1 | 7.1 ± 1.13 |
| Post intervention | 2.7 ± 1.7 | 16.4 ± 30.2 | 28.7 ± 27.1 | 7.46 ± 1.4 |
| Difference | 1.8 ± 1.4 | 11.1 ± 33 | 25.3 ± 21.4 | 2.0 ± 2.9 |

Table 1 : Comparison of semen parameters pre and post intervention in infertile patients

Complications

Complication rate of 17.7% was seen in our study including infection, retention and watery ejaculate.

CONCLUSIONS

- EDO is a potentially correctable cause of **obstructive azoospermia, haemospermia or ejaculatory pain**
- A simple semen volume and pH may help the general urologist in diagnosing patients.
- In selected patients, TURED can result in **marked improvements in semen parameters and symptoms**.
- A **multi-disciplinary approach** with radiology expertise can provide good outcomes for patients with ejaculatory duct obstruction.
- Although the **risk of complications is high (17.7%)**, effects are mild and transient including watery ejaculate, epididymitis and urinary retention.
- Careful patient selection, adequate counselling and surgical experience** are essential for optimal results.

REFERENCE - Modgil V et al. An update on the diagnosis and management of ejaculatory duct obstruction. Nat Rev (2016) 13:13-20

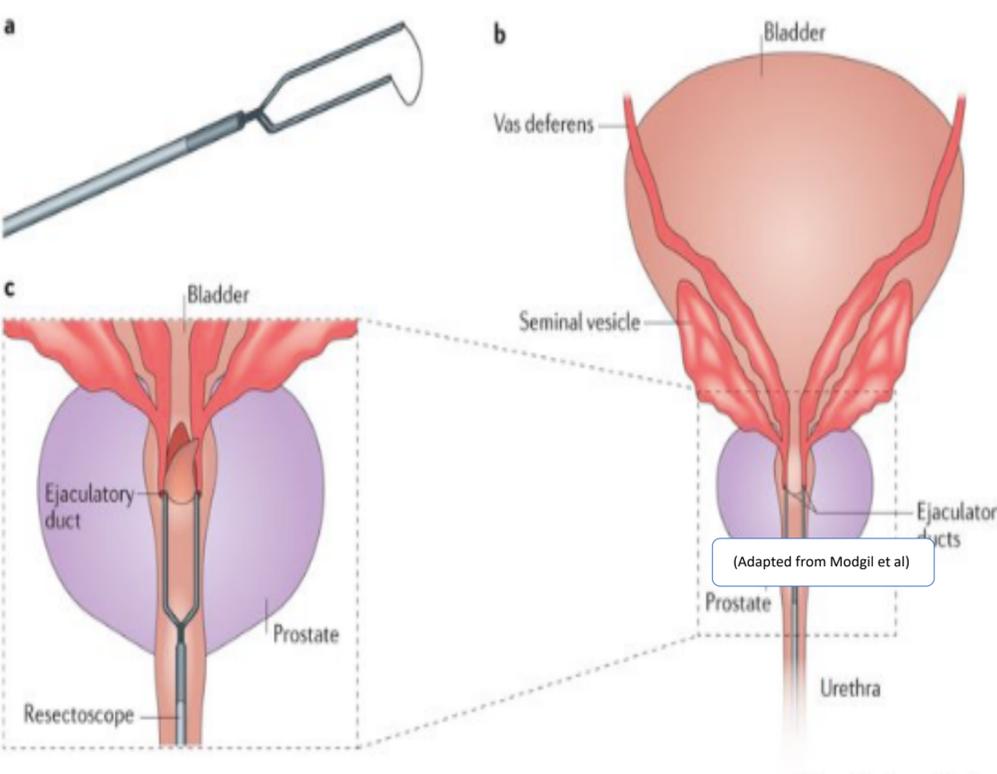


Figure 1

- a) The TURED procedure uses a resectoscope wire loop, inserted transurethally.
- b) The resectoscope approaches the opening of the ejaculatory ducts within the prostatic urethra.
- c) Loop resection deroofs the midline ejaculatory duct cyst.