

## LAPAROSCOPIC REPAIR OF FEMALE GENITOURINARY FISTULAE: SINGLE-CENTER SINGLE-SURGEON EXPERIENCE

### Hypothesis / aims of study

Over the last two decades, recent advancement in minimally invasive surgery has prompted surgeons to perform fistula repairs with laparoscopic or robotic assisted laparoscopic techniques. We present our experience of laparoscopic repair of different types of female genitourinary fistulae that represent a single- center single-surgeon experience

### Study design, materials and methods

A retrospective analysis of our records over the last 10 years was performed where the types of the female genitourinary fistulae, the etiology, the laparoscopic approach performed, operative data, postoperative outcome and follow up of the patients were recorded.

### Results

Overall 42 patients with different genitourinary fistulae were reported where 24 had vesicovaginal fistula (VVF), 13 had vesicouterine fistula (VUF) and 5 had ureterovaginal fistulae (UVF).

### Interpretation of results

All patients developed their fistulae following either obstetric or gynecological surgeries except one patient had post-irradiation VVF. All patients had 3-5 port conventional laparoscopic repair of their fistula except 7 patients with VVF and 6 patients with VUF had laparoendoscopic single-site (LESS) repair. In all patients with VVF and VUF extravescical repair was done where the fistulous tract was excised and both the bladder and the vagina or the uterus were closed in separate layers with interposing tissue in-between. While in patients with UVF extravescical ureteric re-implantation was done. The overall mean operative time was  $176 \pm 25$  minutes. The mean blood loss was  $105 \pm 25$  c.c. There were no intraoperative or postoperative complications in all patients. None of the patients was converted into open surgery, however in all patients who had LESS repair of their fistula but one with VVF, one 5-mm extraport was added. The overall mean postoperative hospital stay was  $3.2 \pm 1.2$  days, however the mean postoperative hospital stay for patients who had LESS repair was  $2 \pm 0$  days. The mean follow up of the patients was  $6.3 \pm 3.1$  years. All patients had successful repair but one patient with complex VVF (two large fistulae that measured 2 and 2.5 cm) that had LESS repair where the omentum was too short and only peritoneal flap was used as an interposing tissue.

### Concluding message

Laparoscopic repair of VVF, VUF and UVF is technically feasible and safe procedure with high success rate and low morbidity. LESS repair of VVF and VUF is a valid alternative with comparable success rate to conventional laparoscopic repair and shorter hospital stay. However laparoscopic repair of female genitourinary fistulae is a technically challenging procedure that requires good laparoscopic skills.

### Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Alexandria school of medicine ethical committee  
**Helsinki:** Yes **Informed Consent:** Yes