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LONG TERM RESULTS OF PRIMARY AND RECURRENT VESICOVAGINAL FISTULA REPAIR – A SINGLE INSTITUTION EXPERIENCE

Hypothesis / aims of study

Vesicovaginal fistulas (VVF) is among the most devastating complications for a patient after gynecologic and obstetric procedures. The main 2 surgical approaches to treat this condition are transvaginal or transabdominal. It has been suggested that recurrent VVF are often better treated with an abdominal approach, but this technique is associated with more morbidity, more complications and longer recovery than a transvaginal approach. We present a single institution experience of primary and recurrent VVF repairs describing the surgical management and outcomes.

Study design, materials and methods

After institutional review board approval, a retrospective chart review of all patients who underwent VVF repair at our institution between 2001 and 2012 was performed. Patients with a primary VVF repair and with a history of a prior surgical repair of VVF fistula were included. Patient demographics, comorbidities, etiology of fistula, procedural details, post-operative management and complications were collected. VVF were repaired with a transvaginal multi-layer technique without fistula excision with or without tissue interposition or a transabdominal O'Connor technique depending on the surgeon's preference [1-2].

Results

A total of 137 patients were referred to our institution for VVF repair from 2001 to 2012, including 27 patients with a history of 1 prior failed repair and 15 patients with at least 2 previous failed repairs. Mean age was 46.4 ± 11.7 year old. Mean BMI was 28.9 ± 9.0 kg/m2. A total of 46 patients were active smokers at the time of surgery. Most fistulas were secondary to abdominal hysterectomy (N=90), 18 occurred after a laparoscopic/robotic hysterectomy, 8 after a vaginal hysterectomy and 21 were from another etiology. A total of 149 procedures were performed. The surgical details are summarized in Table 1. The majority of VVF were repaired with a transvaginal approach (68.5%). The abdominal approach was used more frequently if the patients had already failed more than 2 prior VVF repairs (57.1%). Only 9 patients failed our first repair attempt. Among them, 5 patients had a primary fistula and were cured after a second transvaginal repair. Four of these patients had a recurrent fistula and three were cured after 2 procedures and one patient required a total of 3 procedures before being cured. These last 4 patients all required an abdominal repair with omental flap. No major perioperative complications were recorded. The route of surgery, the primary or recurrent nature of the VVF and the history of a previous transvaginal or abdominal repair did not impact significantly the success rate of VVF repair.

Interpretation of results

Transvaginal VVF repair is a very effective approach to VVF repairs even in patients with a history of a previous failed transabdominal or transvaginal repair. It resulted in a very high success rate even in patients with recurrent VVF and the majority of patients did not require tissue interposition. It is acceptable to repeat a transvaginal repair even after a first vaginal approach failure. However, in cases with mulitple previous failed repairs, abdominal VVF repair with omental flap is a very effective salvage procedure.

Concluding message

Even in cases of previous failed repair, transvaginal VVF repair has a very high success rate. In patients with more than 2 previous failed repairs, abdominal VVF repair with omental flap remains a very effective salvage procedure.

Table 1. Vesicovaginal fistula surgery description

	Primary VVF (N)	1 prior failed repair VVF (N)	Greater than 2 prior failed repair VVF (N)
Total of procedures	95	33	21
Previous VVF repair approach			
Transvaginal		16	7
Abdominal		17	4
Transvaginal + abdominal			10
Transvaginal approach	68	25	9
No tissue interposition	51	18	1
Martius flap	4	2	3
Other	13	5	7
Transabdominal	27	8	12
No tissue interposition	0	0	0
Omentum	22	6	12
Peritoneal/ Perirectal fat	5	2	0
VVF repair failure	5	2	4
Mean time ± SD since last repair (days)		174 ± 85	237 ± 248

VVF: Vesicovaginal fistula

N: Number

SD: Standard deviation

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Disclosures
Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Cleveland Clinic Institutional Review Board **Helsinki:** Yes **Informed Consent:** No