

## Transvaginal Repair of Peritoneal Cavity to Vaginal Fistula Utilizing a Next-Generation Decellularized Dermal Allograft

*R. Keith Huffaker, MD, MBA, FACOG*

### Surgical Summary

#### Presentation:

36-year-old female, with a history of a transabdominal hysterectomy several months prior (per another provider), presented in the clinic complaining of persistent bleeding per the vagina.

#### Preoperative Diagnosis:

- Delayed vaginal cuff wound healing status post transabdominal hysterectomy

#### Postoperative Diagnosis:

- Delayed vaginal cuff wound healing status post transabdominal hysterectomy
- Enterocele with fistula from peritoneal cavity to vagina

#### Procedure:

- Transvaginal repair of fistula existing from peritoneal cavity to vagina with excision of fistula tract
- Enterocele repair & placement of DermaPure®, a decellularized dermal allograft
- Cystourethroscopy

#### Intra-Operative Implantation of DermaPure:

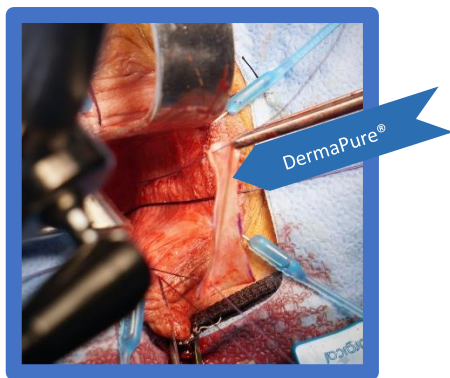


Figure 1

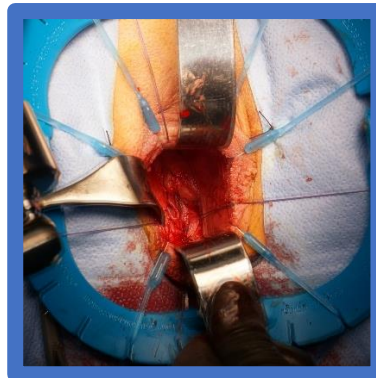


Figure 2

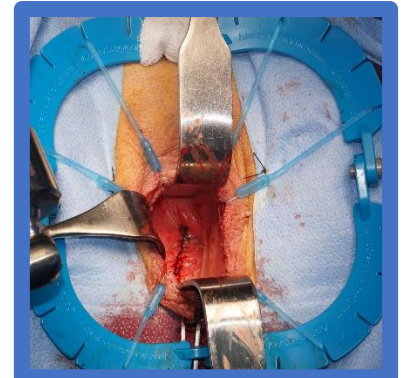


Figure 3

#### Outcome:

- Cystourethroscopy revealed no trauma to bladder or urethra following fluid drainage during dissection; determined to be peritoneal fluid
- Use of the graft allowed for additional tissue layer between peritoneal closure and vaginal closure to reduce chance of persistent drainage tract/fistula
- Patient reported marked improvement and doing well 6 weeks post procedure

#### Surgeon Perspective:

"Use of DermaPure along with Veronikis Vaginal Retraction System™ allowed a minimally invasive vaginal approach and avoidance of abdominal approach for a positive surgical and patient outcome"

– *R. Keith Huffaker, MD, MBA, FACOG*



6 Weeks Post Op

## Transvaginal Repair of Peritoneal Cavity to Vaginal Fistula Utilizing a Next-Generation Decellularized Dermal Allograft (DermaPure)

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### Case Report

#### Presentation:

36-year-old female, with a history of a transabdominal hysterectomy several months prior (per another provider), presented in the clinic complaining of persistent bleeding per the vagina.

#### Assessment:

Clinical examination revealed granulation tissue and delayed wound healing at the vaginal apex.

#### Intraoperative Findings:

- The patient was found to have an enterocele with fistula tract draining from peritoneal cavity to the vagina at the vaginal apex midline.
- A 2mm, small area of granulation appearing tissue present.
- During excision of this granulation appearing tissue, there was return of fluid suspicious for urine.
- Further extensive exploration of this area following drainage of the bladder, revealed a fistula tract coursing to the peritoneal cavity.

#### Surgical Treatment:

- The patient was taken to the operating room, placed in dorsal supine position and administered general endotracheal anesthesia.
- Placed in Yellowfin leg holders, prepped and draped for vaginal and abdominal procedure. The bladder was drained.
- The Veronikis Vaginal Retraction System™ was placed with placement of stay sutures.
- Sharp dissection circumferentially extending approximately 1.5 – 2.0 cm around the site.
- Entry into peritoneal cavity was determined following normal cystourethroscopy.
- Excision of tissue surrounding the fistula tract was accomplished. 2-0 Vicryl was used in purse string fashion to close the enterocele incorporating peritoneum and sub-epithelial vaginal tissue.
- Approximately 2 x 4 cm segment of DermaPure®, a decellularized dermal allograft was inlaid overlying the fistula tract and secured to the sub-epithelial vagina in a longitudinal fashion with 2-0 Vicryl suture, ensuring that the allograft lay flat.
- Vaginal epithelium was closed in running locking fashion in midline longitudinal fashion over the allograft
- Premarin cream and vaginal packing were placed

#### Conclusion:

- Intraoperative cystourethroscopy revealed no trauma to bladder or urethra following fluid drainage during dissection; fluid ultimately was noted to be peritoneal fluid
- 6-week follow-up revealed appropriate healing with minimal discharge; patient reported improvement & doing well
- Use of the DermaPure allowed for additional tissue layer between peritoneal closure and vaginal closure to reduce chance of persistent drainage tract/fistula
- Use of the DermaPure along with Veronikis Vaginal Retraction System™ allowed minimally invasive vaginal approach and avoidance of abdominal approach