

TRANSVAGINAL NEOBLADDER VAGINAL FISTULA REPAIR AFTER RADICAL CYSTECTOMY WITH ORTHOTOPIC URINARY DIVERSION IN WOMEN

Hypothesis / aims of study

Neo-bladder vaginal fistula (NBVF) is an uncommon complication after radical cystectomy with orthotopic urinary diversion, occurring in 3-11% of cases [1-3]. Currently there are no large series that describes optimal management of this challenging situation. We present a single institution series of 8 patients who underwent transvaginal neo-bladder vaginal fistula repair at our institution describing the surgical management and outcomes.

Study design, materials and methods

A retrospective review of all patients who underwent transvaginal NBVF repair at our institution between 2002 and 2012 was performed. Patient demographics, comorbidities, bladder cancer history, procedural details, post-operative management and complications were collected. The surgical management entailed initially placing a Foley catheter into the fistula tract. A circumferential incision was made around the fistula tract after which a plane between the serosa of the neobladder and the vaginal epithelium was created. Interrupted polyglycolic acid sutures were used to close the fistula. An additional layer of vaginal wall or a Martius or omental flap was interposed before vaginal wall closure. A urethral catheter was placed for a minimum of 14 days and removed only after a negative cystogram and pelvic exam with retrograde neobladder filling without leakage.

Results

Eight patients with a mean age of 57 years [40-77] underwent transvaginal NBVF repair. All patients had undergone anterior exenteration with orthotopic ileal neobladder (Studer pouch). Mean time from radical cystectomy to NBVF repair was 499 days [190-1533]. Two patients had undergone a prior attempt of fistula repair. Unilateral Martius flap was used in 5 patients and omental flap in 1 patient. Mean time to catheter removal was 24 days [14-60]. A negative cystogram and physical exam were obtained in all patients before catheter removal. After a mean follow up of 2.6 years, 5 patients underwent or are waiting to undergo management of severe stress urinary incontinence with mid-urethral sling or bulking agents. No patient had a recurrent fistula.

Interpretation of results

Management of NBVF is challenging due to vaginal shortening, vaginal atrophy and proximity of the neobladder to the vaginal wall. Many series documented the need to convert to a continent or incontinent urinary diversion to treat this complication. We present 8 patients who were successfully treated with a transvaginal NBVF repair, even in cases of previous failed repair. In this type of cases, we strongly recommend the use of an additional layer with a Martius flap or omentum, if the later was brought down in the pelvis at the time of the cystectomy and is easily reachable through the vaginal incision.

Even though all patients were cured of their fistula, 5 had severe stress incontinence. Patients are often left with a short incompetent urethra, resulting in incontinence after the repair and should be counseled about the possibility of requiring a second procedure to achieve continence. Patients represented in this series were very motivated patients who wanted to avoid a stoma. The management of the residual stress incontinence is very complex. We preferred to use bulking agents in most of these patients because it was a safer option without risk of small bowel perforation. No patient required intermittent self-catheterization after the injections.

Concluding message

Management of NBVF is challenging but cure is possible using a transvaginal approach. However, most patients will suffer from severe incontinence after the repair because of a likely short and incompetent urethra. Patients should be counselled about the high probability of requiring a secondary procedure to achieve continence.

References

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Disclosures

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