

Pelvic organ prolapse in a woman with previous mitrofanoff operation: Management of a case

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Abstract

Mitrofanoff operation or vesico-appendicostomy is a continent conduit operation performed for intractable incontinence. The long-term complications reported in the literature are related to the stoma. Pelvic organ prolapse among women who have undergone this surgery is not reported earlier. A woman of 27 years of age presented with uterovaginal prolapse. She had sustained bladder neck transection following a road traffic accident at 16 years of age. The same was primarily repaired but incontinence had remained. Many standard operations for incontinence were performed. Finally, Mitrofanoff operation was carried out 9 years back because of persisting intractable incontinence. She got married and had two uneventful vaginal deliveries 5 and 2 years back. There was supravaginal elongation of the cervix with a rectocele. After counseling Fothergills operation with laparoscopic ligation was performed. The challenges and details of the management of the case are highlighted.

Keywords: Fothergill's operation, mitrofanoff operation, pelvic organ prolapse, tubal ligation, vesico-appendicostomy

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INTRODUCTION

Mitrofanoff operation or vesicoappendicostomy is a continent conduit from the urinary bladder to skin with the help of appendix.^[1] Long-term follow-up in the literature has mentioned the complications and the outcomes related to the procedure and the stoma.^[1,2] There are no reports in the literature of pelvic organ prolapse observed during the long-term follow-up of these women. We report a woman who had undergone this operation 9 years back and presented with pelvic organ prolapse. We discuss the management challenges of such a case.

CASE REPORT

A 27-year parous woman presented with pelvic organ prolapse [Figure 1]. At the age of 16 years, she had sustained a road traffic accident with pelvic fracture and bladder neck transection. The same was managed with primary surgical repair by urologists. She developed incontinence, which was treated with vaginal tape. Since the surgery did not succeed in relieving the problem. Teflon injection and later Pubovaginal sling were tried. However, her incontinence persisted, and she developed a small capacity bladder following infection and inflammation

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Figure 1: Clinical photograph of the prolapsed utero-cervix

of the bladder. Finally, Mitrofanoff operation with augmentation cystoplasty was done by urologists when she was 19 years of age, after counselling. The stoma was on the right flank region. Ever since she had been on clean intermittent self-catheterization (CISC) of the neo stoma with good quality of life.

The women got married and had two uneventful uncomplicated vaginal deliveries 5 and 2 years back. The pregnancies were uneventful. Both the deliveries were in our hospital. There were no stomal or urinary complications during the pregnancies.

The women presented with something coming out of the vagina for 6 months after the last childbirth. There was a history of difficulty in walking and excessive vaginal discharge. She had not experienced any difficulty in CSIC after the occurrence of prolapse. There were no menstrual problems. On examination, the general physical examination was normal. Abdomen revealed multiple vertical scars and the Mitrofanoff stoma on the right flank [Figure 2]. The pelvic organ prolapse quantification classification is shown below:

-3	+1	+5
Aa	Ba	C
5	2	8
gh	pb	tvI
-1	+2	-6
Ap	Bp	D

The grid suggests that there was supravaginal elongation of the cervix. There was no enterocele. There were a small cystocele and significant rectocele and deficient perineum. She also wanted tubectomy operation. Because of the young age and the fact that there was supra vaginal elongation of the cervix and no enterocele, we counseled her for Manchester Operation with laparoscopic ligation.

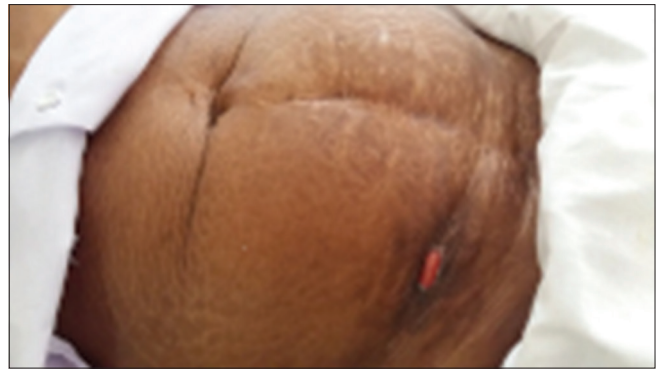


Figure 2: Photograph of the abdomen showing the urinary stoma

Fothergill operation and laparoscopic sterilization were performed under spinal anesthesia. The woman catheterized herself 1 h before surgery with a sterile red rubber catheter. The same was removed immediately after the surgery. The reflection of the bladder, cervical amputation, and pelvic floor reconstruction steps was uneventful. The laparoscopic portal was taken at Palmer's point and the second portal at the left lower abdomen at the level of the umbilicus to avoid any injuries due to the multiple operations. There were many adhesions and distorted anatomy. The adhesions were not disturbed. The tubes were visualized through a small window avoiding the site of bladder augmentation and ileal loop. Falope rings were applied uneventfully without dissecting any adhesion.

The postoperative output was measured by encouraging CISC. The urine culture was sterile.

The woman was discharged on the 5th day. At 6-weeks follow-up, she was asymptomatic. On pelvic examination, there was an anatomical cure of the prolapse. The stoma was functioning well.

DISCUSSION

Mitrofanoff or appendicovesicostomy is a standard operation performed for women with a congenital anomaly such as bladder exstrophy, neurogenic bladder, and intractable incontinence.^[3] Long-term complication reported of the procedure is usually stomal complications such as prolapse of the stoma, stenosis, and incontinence.^[2,4,5]

Pregnancy is known to increase stomal complications and difficulty at CISC due to the stretching of the bladder. In a case series, the author reported five women with catheter conduit channel stoma in the right lower quadrant of the abdomen. Catheterization was difficult during pregnancy

in 50% of women and a high incidence of urinary tract infection was observed. Cesarean section, recommended only for obstetric complications, is attended with difficulty in approach to lower segment and inadvertent cystotomies.^[6] In a 10-year follow-up study of 29 patients with spinal cord disorders and neurogenic bladder, stomal problems were the complications reported.^[5] There is no report of pelvic organ prolapse on the long-term follow-up of women who have undergone Mitrofanoff operation.

Both the pregnancies in our case were uneventful. She was allowed for vaginal delivery. The uterovaginal prolapse in our case was possibly due to failure of Level II and Level III Delancey Support weakened during the pelvic fracture and further compounded by vaginal deliveries. Since there was supravaginal elongation of the cervix without any enterocele, Fothergills operation was chosen. This operation involves the amputation of the cervix with a shortening of the cardinal ligament and supporting the cervix with the shortened cardinal ligament.

Laparoscopic sterilization in women after Mitrofanoff operation is feasible. One needs to know there can be adhesions. The port should be avoided on the same side as the stoma. The primary port should be inserted at the Palmer point or a higher midline point. The occurrence of pelvic organ prolapse after Mitrofanoff operation has not been reported earlier. A conservative surgery like Fothergill operation is feasible and can be accomplished if there is supra vaginal elongation of the cervix suggesting strong ligaments.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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