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Management of Abscess Following Le Fort Colpocleisis

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ABSTRACT

Postoperative abscess after colpocleisis is rare. We reported a 67-year-old woman with an abscess after a month of Le Fort colpocleisis. Two abscesses of approximately 5 cm in size were drained. The injection of antibiotics continued up to 7 days after the surgery, and the drain was taken on the 4th day after the operation due to the improvement of the patient's general conditions and no discharge. It is recommended to consider pelvic abscess in patients suffering from fever, pain, pelvic pressure, and diarrhea after pelvic surgeries. Early diagnosis and treatment will reduce mortality and disability in patients.

Keywords: Abscess, Vaginal Diseases, Pelvic Organ Prolapse, Woman

Introduction

Colpocleisis is an obstructive surgery performed on women with uterine prolapse or vaginal cuffs who are not suitable candidates for major reconstructive surgery. This surgery is an appropriate choice for patients who have advanced prolapse of the uterus or vaginal cuff and are not sexually active **(1)**. Leon Le Fort performed the technique for the procedure in 1877, which is now known as Le Fort partial colpocleisis **(2)**. During Le Fort partial colpocleisis, rectangles in the posterior and anterior vaginal walls are uncovered and then the collected leaving lateral channels are sutured for the drainage of cervical secretions. This technique can also be a good choice for patients with recurrent pelvic organ prolapse who are no longer sexually active **(3)**. The success rate of this technique is usually between 91% and 100% **(4)**. According to the results of a recent study, the rate of relapse was about 4.2% and the need for reoperation was reported in only 2-3% of patients **(5)**.

The advantage of Le Fort partial colpocleisis is that it is improbable to injure the adjacent organs, main vessels, or nerves since the planes of dissection are superficial **(6)**. Furthermore, the process is rapid to perform with a short recovery time, and if necessary, it can be carried out under local anesthesia **(7)**. Postoperative abscess after colpocleisis is rare; however, in this case report, a 67-year-old woman was reported with abscess after Le Fort partial colpocleisis.

Case Presentation

A 67-year-old woman (menopause) was referred to the Division of Female Pelvic Medicine and Surgery, Tehran University of Medical Sciences, Tehran, Iran, with a complaint of vaginal mass exit and urinary incontinence 10 years ago. The patient complained of having a history of stress and urge incontinence, two to three episodes of incontinence per day, and sometimes a need for using pads. She also complained of a delay in the onset of urinary flow and the disconnection and connection of the urinary flow while urinating. She had not had sexual activity or sex for 20 years due to her separation from her husband. Moreover, 15 years ago, she had a history of subtotal hysterectomy and anterior-posterior colporrhaphy due to bleeding, and she did not

take any special medication. On examination, the cough test was negative and the bulbocavernosus reflex and anal wink were normal. The results of the patient's pelvic organ prolapse quantification system examination are presented in Table 1.

Table 1. Results of pelvic organ prolapse quantification system examination

Variable	Results
Aa (point A anterior)	+3
Ap (point A posterior)	0
Ba (point B anterior)	+5
Bp (point B posterior)	0
Gh (genital hiatus)	6
Pb (perineal body)	4
TVL (total vaginal length)	9
C (cervix or vaginal cuff)	+6

The results of the rectal examination were normal in rest, squeeze, and pushing positions and she lacked synergy. On vaginal examination, the patient had atrophy and hypermobility of the duct, the tone of the levator muscle was weak and its duration was reduced, and perineal defects and descent were observed. The results of the patient's urodynamic test are tabulated in Table 2.

Table 2. Results of urodynamic test

Variable		Results
Post-void residual volume		0
First sensation of filling		153 cc
Desire to void		354 cc
Strong desire		>500 cc
Detrusor		Stable in filling phase
Positive perineal body Valsalva leak point pressure in 510 cc with abdomen pressure		88 mmHg
Valsalva leak point pressure	Positive	
	236 cc	112 mmHg
	299 cc	109 mmHg
	386 cc	103 mmHg
	516 cc	96 mmHg

In uroflowmetry examination with a catheter, the patient could not urinate; nevertheless, in simple uroflowmetry, she excreted a volume of 480 cc with a maximum urine flow of 24.4 cc per second, and the electromyography test was inactive.

According to the above, she underwent the Le Fort partial colpocleisis surgery. The cervical stump was not removed to shorten the surgery, and at the same time, transobturator tape surgery was performed on her. The patient's post-void residual volume was checked 1 day after the surgery, which was 10 cc, and because no postoperative hemoglobin was observed and the vital signs were stable, she was discharged from the hospital. She referred to have the location of the sutures controlled 2 weeks after the surgery, the examination of which showed that both channels were open and without discharge and the patient had no particular problem; moreover, the pelvic floor distress inventory questionnaire-20 was completed for her.

The patient complained about a 39-degree fever and abdominal pain a month after the surgery. According to the patient, this pain started 4 days before and it intensified on the day of the visit, also pus came out of the vagina since the morning of the visit. On rectal examination, a mass of approximately 7 cm was palpable. She was hospitalized immediately and the antibiotics including ampicillin, clindamycin, and

gentamicin were prescribed for her; the patient's fever stopped after taking the antibiotics. A heteroechoic mass (91×102×104 mm) containing focused gas and mobile debris was seen near the bladder in ultrasound. A computed tomography scan was performed to confirm the mass and its nature. In the image, the hypodense area with an enhancing and thick wall was seen, containing fluid and air (105×110 mm) in the pelvis expanding to the hypogastrium, which suggested a collection of fat straining around the area.

The patient underwent rectal examination under anesthesia and the palpable mass was observed; afterward, the contents of the abscess were emptied under anesthesia through the rectum. Furthermore, samples were prepared and sent to the laboratory for cultivation. The patient's antibiotics were changed to cefepime and metronidazole according to the infectious disease counseling.

The patient complained about severe abdominal pains at the postoperative visit; therefore she underwent an examination, according to which she had a generalized tenderness with tendon rebound. An ultrasound was performed immediately, in which collection was not seen. Mild to moderate free fluid containing debris was observed in the anterosuperior space to the bladder (figure 1).

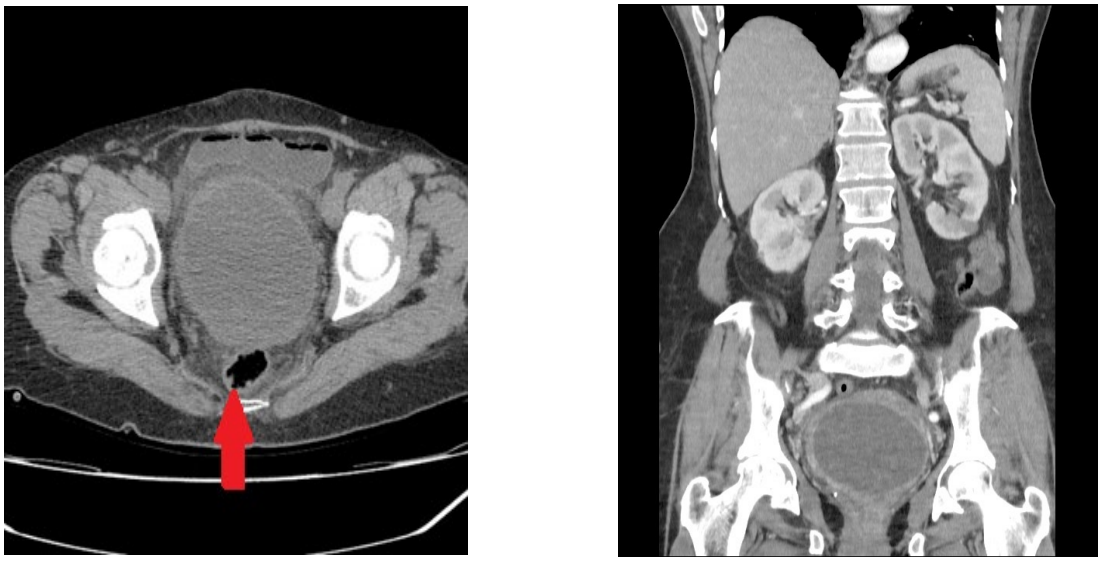

Figure 1. Ultrasound, Mild to moderate free fluid containing debris in the anterosuperior space to the bladder

The patient with a diagnosis of peritonitis was transferred to the operating room and the abdomen was opened with a midline incision. Two abscesses of approximately 5 cm in size were seen at the site of the cul-de-sac and cervical stump. The abscess was drained and significant amounts of fibrin were evident in the intestines. The abdomen was rinsed with 10 liters of serum and closed after placing the drain in the posterior cul-de-sac. Stump roux did not come out due to severe inflammation. The injection of antibiotics continued up to 7 days after the surgery, and the drain came out on the 4th day after the operation due to the improvement of the general conditions of the patient and no discharge. Table 3 summarizes the results of the patient's tests on the 1st and 4th days after the surgery.

Table 3. Results of the patient's tests on the 1st and 4th days after the surgery

Variable	Results	
	First day after surgery	Fourth day after surgery
White blood cells (cells/µL)	24,800	1,300
Hemoglobin (g/dL)	11/2	9/8
Platelet (cells/µL)	371,000	473,000

Discussion

Le Fort partial colpocleisis is an appropriate option for menopause women due to its rare side effects. However, the risk factors for infection after pelvic surgery should be considered. The abscess might be the result of an infection in a different pelvic organ or an intra-abdominal surgery **(8)**. Based on the findings of a study by Safadi et al., pelvic abscess after surgery can be a sequela of infection in the genital tract **(9)**.

An abscess after surgery may occur in the ovary and tube, may be a group of infected materials within the pelvic cavity, or may lie among the leaves of the broad ligament, usually in the cul-de-sac, in which case its higher wall is typically shaped by matted and adherent intestinal coils **(10)**. However, abscess after Le Fort partial colpocleisis is very rare; the only case reported by Shobeiri in the USA (2006) was related to a 75-year-old woman developing pelvic abscess following Le Fort colpocleisis after 2 weeks **(2)**. Nevertheless, in our case, the abscess was observed 1 month after the surgery. Another report was related to a rare case with small bowel evisceration 3 years after Le Fort colpocleisis surgery **(11)**.

The typical management of the pelvic abscess is medical therapy, consisting of the maintenance of electrolyte balance and fluid and the usage of antibiotics. Most common cases have responded to this regimen; however, this type of treatment frequently entails prolonged periods of intensive medical care **(12)**. In this patient, after the removal of the abscesses and then using broad-spectrum antibiotics, the patient completely responded to the treatment.

According to the results of studies, menopausal women are exposed to subclinical infection since the vaginal tissue is regularly dry, thickened, and ulcerated for months **(2, 13)**. Therefore, it is recommended to consider pelvic abscesses in patients suffering from fever, pain, pelvic pressure, and diarrhea after pelvic surgeries. Early diagnosis and treatment will reduce mortality and disability in patients.

Conclusion

None.

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Conflict of Interest

The authors have no conflict of interest.

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