Case Report

Rare case of rectovaginal fistula in adults

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ABSTRACT

Rectovaginal fistula is an abnormal epithelial lined connection between the rectum and the vagina. The term anovaginal fistula may also be used when the internal fistula opening is found below the anorectal angle. Bowel contents leak through the fistula, allowing gas or stool to pass through the vagina. It may be congenital or acquired. Congenitally these are the anorectal malformations which affect the females when present since birth. Here, we have discussed the cases of adult rectovaginal fistula which the women had developed after vaginal delivery, the obstetric fistula. Patient presented with passage of stool from the vagina after the delivery. They were examined, assessed and successfully treated in our institution. Depending on the site of fistula formation, decision is taken for surgical approach and various techniques. Here the well-known Martius flap, which is based on bulbocavernosa muscle and pudendal artery has been used in both the cases. This flap is best used to repair fistula in the perineal region when there is no underlying sphincter defect.

Keywords: Rectovaginal fistula, Obstetric fistula, Martius flap

INTRODUCTION

About 0.5% of women with vaginal deliveries, 9-10% Crohn's disease develop rectovaginal fistula.¹⁻³ But now due to increased institutional deliveries the incidence of rectovaginal fistulas due to vaginal deliveries have significantly reduced. The contributing factors of rectovaginal fistula are trauma, IBD, pelvic irradiation, rectal/uterine/cervical vaginal neoplasia, infection, unsuccessful repair of 3rd and 4th perineal laceration, rectocele repair, pressure necrosis secondary to prolonged labour, rectal ulcers to fistula formations, post-surgical complications (LAR-stapler misfire). They are evidenced by passage of gas, feces, mucus through vagina.

CASE REPORT

A total of two cases with features of passage of stool from vagina were admitted in the department of general surgery, KIMS, PBMH. A 27 years old female presented with

complain of passage of frank stool from vagina since her vaginal delivery one and half years ago. There were no comorbidities. On per-vaginal examination, it was found out that there was an opening 1 cm above introitus. There was no tenderness or induration or discharge from the site.

On per vaginal examination, it was found out that there was an opening 1 cm above introitus without any tenderness, induration or discharge from the site. Since it was a low rectovaginal fistula, Martius flap was planned through a transvaginal approach. Laboratory tests to assess the baseline hematocrit, biochemical parameters were obtained. After pre-anaesthetic evaluation, patient was posted for surgery.

Under spinal anaesthesia, and lithotomy position patient was catheterised, and the desired results were achieved by the following steps: transverse incision was given over vaginal mucocutaneous junction. Vaginal flap dissected from rectovaginal septum (Figure 2). Posterior vaginal tunneling created and fistulous tract (2×2 cm) was

dissected and excised in toto and sent for histopathological examination. Rent in anterior rectal wall and soft tissue repair was done. Left labius majora longitudinal incision given. Fat pad of labius majus with underlying bulbo cavernosa muscle mobilised on posterior pedicle containing pudendal artery (Figure 3). It is dissected out through through the labial incision. The flap was swung through a subcutaneous tunnel to lie over the rectal closure and fixed with PDS 3-0.

An island of skin with underlying fat, fascia, muscle cut from perianal groin crease. Its deep attachment is preserved to maintain blood supply, it is then tunneled under lateral perineal skin to lie between anus and vagina (Figure 4). Minivac drain placed in situ. Closure of posterior vaginal wall done with PDS 3-0. Vaginal wall, rectum and anorectal wound over left labia repaired with vicryl 2-0 labial sutured with ethilon 3-0.

Her post-operative period was uneventful and the wound was healthy at the time of discharge. She went home with a prescription of laxative and local application of lubricant and was advised to keep the area clean and dry and to avoid coitus for 3 months. Patient was being followed up regularly after 15 days, one month and 3 months and there was no fistula present. Presently she is doing fine and there is no recurrence of symptoms.

We have witnessed another case, 37 years old female who had two normal deliveries, 5 and 2 years ago respectively. She complained of passage of stools through vagina since, 5 years. After thorough investigations, her colonoscopy showed a suspected fistulous opening at 25 mm from the anal verge. She also underwent CT abdomen with rectal contrast which confirmed by showing a stream of contrast seen passing from anal canal to vaginal canal about 22 mm from the anal verge (Figure 7). She was taken up for repair of the rectovaginal fistula with Martius flap like the previous patient. The fistulous tract was excised and sent for biopsy which revealed as inflamed fistulous tract. Patient is now doing well with passage of stool from the rectum and is on regular follow-up.

Figure 1: Initial assessment of fistulous tract.

Figure 2: Vaginal flap dissected from rectovaginal septum.

Figure 3: Left labia majora-bulbocavernosa flap.

Figure 4: Martius flap tunneled between anus and vagina.

Figure 5: Left Labial wound after tunneling of Martius flap.

Figure 6: Final labial wound.

Figure 7: CT scan of abdomen with rectal contrast.

Figure 8: POD 15, final healthy wound.

DISCUSSION

Rectovaginal fistula may be congenital or acquired. Congenitally these are the anorectal malformations which affect the females. When acquired trauma, third and fourth-degree perineal lacerations, along with episiotomies due to difficult labor, unsuccessful repair of 3rd and 4th perineal laceration, that is obstetric are most common cause.

Homsy et al found that rectovaginal fistulae were reported in the range of 0.1% of patients who underwent episiotomy during delivery. It was found that rectovaginal fistulae

develop in 0.05% of patients who undergo a median episiotomy but in 1% of those who suffer third and fourth-degree lacerations. As expected, these fistulae are more common in developing countries due to less resources to aid with the process of childbirth.

Infection like cryptoglandular abscess, IBD (Crohn's disease), pelvic irradiation (for cervical/vaginal carcinomas, rectal/uterine/cervical vaginal neoplasia, rectal ulcers to fistula formations, post-surgical complications (LAR-stapler misfire) are other causes of rectovaginal fistula.

Clinically they include passage of gas, feces, mucus, blood through the vagina (other than menstrual days) which may psychosociologically affect the woman. The unfortunate women with this condition may also complain of cumbersome soiling and itchiness within the vagina and associated with dyspareunia with elements of depression and stress.

On digital examination, a dimple is felt on palpation which can be confirmed easily on anoscopic and speculum examination. It also confirms the presence, size, and location of the fistula, as well as the integrity of the anal sphincter.

In case of traumatic injuries- anal manometry which assess the anal sphincter strength, endoanal USG, demonstration of severity of sphincter defect is useful.

Endoscopy may reveal Crohn's disease, diverticular disease and rectal cancer. Colposcopy for cervical or vaginal cancers. CT scan gives details the information about the fistula and also the nearby area. Tissue biopsy from the suspected masses help to confirm the malignancy and its origin. Rectovaginal fistula is classified based on location, size, and etiology.

An objective classification of RVFs is based on the distance from the site of the hymen to the distal margin of the fistula, as described by Judith Goh.⁴ In practice, most people describe RVFs as low (lower 1/3rd of vagina), high (upper 1/3rd of vagina) or intermediate (middle 1/3rd of vagina). An estimate is made of the size and the amount of scar surrounding the defect.

Sizes of the fistulae are classified as 'small' if <0.5 cm, 'medium' if 0.5 to 2.5 cm, and 'large' if >2.5 cm.

Depending on the site of fistula formation, different surgical approaches are used- (a) if it is a small, low output fistula it close spontaneously and does not require any intervention; (b) those associated with inflammatory bowel disease, radiotherapy, infection, resolve only with medical and surgical therapy; (c) the high RVF (upper 1/3rd of vagina)- requires transabdominal approach; (d) in low RVF repair is done transvaginally, transrectally, transperineally, use of endorectal advancement flap (Martius flap), interposition flap (Gracialis flap); (e)

transperineal approach (perineoproctomy)-converts RVF to 4th degree tear; (f) the tissues are then approximated in normal anatomical fashion with internal, external, levators in layers, this is reserved for patient with pre-existing sphincter defect, when other fail; (g) a sphincteroplasty is done for rectovaginal fistula when the patient has a defect in the anterior sphincter complex; (h) in RT, IBD, neoplasia- rectal excision is done, low anterior resection or coloanal anastomosis and sphincter is preserved when there is normal evacuation of stool.

Martius flap was originally described by Heinrich Martius, who had applied the bulbocavernosus/bulbospongiosus muscle for the repair of urethra-vaginal fistula. It contains skin, fat, or muscle from the labium major region is a local transfer flap. This flap receives a blood supply from both external and internal pudendal arteries. The dual blood supply to this tissue and the bulbocavernosus muscle (dorsally via internal pudendal artery and ventrally via external pudendal artery) enables the surgeon the choice of using a flap with a superior or inferior base.⁵ It has been widely accepted and adopted for the repair of urethrovaginal, vesicovaginal and rectovaginal fistulae.⁶ The placement of a Martius flap (bulbocavernosus pedicled transplant) result in improved rates of repair and better functional outcomes.⁷ However, an informed consent for decreased sensation and numbness at the flap harvesting area should be obtained.⁵

CONCLUSION

The management and its outcome depend on the efficacy of diagnosing without much delay from the time of presentation and unnecessary suffering of the patient.

It also depends on the underlying causes. Finally, an RVF has adverse mental morbidity. Thus, these patients should be referred to a mental health counsellor if required. Rectovaginal fistula is presently a very rare entity, and most often remains undiagnosed due to social stigma.

Medical treatment has low rates of long-term symptom control and high rates of recurrence. Surgical management remains the mainstay and plays an important part in the life of the patient.

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