CR
CASE REPORT
E.P.C.M.S.

Martius Bulbocavernosus Fatty Tissue Flap Plasty for the Treatment of Vesico-Vaginal Fistula created by Erosion of the Retained Gellhorn Pessary in a Ninety-One Year Old Patient

Rafael Julian Arcone, M.D, PGY3
Kim Le
Robert Vera, M.D.

ABSTRACT

Ninety one year old female with a retained pessary for four years for the treatment of pelvic organ prolapse. Pessary had migrated completely inside the bladder and the fistulous opening measured four centimeters. Mostly, pessaries are well tolerated but when neglected may lead to serious complications including vesicovaginal and rectovaginal fistulas. Various methods repair have been described in literature depending on the characteristics of the fistula. Large number of reinforcement flaps had also been described in literature for strengthening the repairs. An interposition flap from the pelvic fat surrounding in between the urinary bladder and the vaginal wall called martius labial fat flap was utilized on this patient with excellent results. We believe that interposition of labial pad of fat helps improve the success of repair in giant vesicovaginal fistulae created for erosion associated with a pessary and a great option as a technique for patients with increased surgical risk.

BACKGROUND INFORMATION

Pessaries were used for the treatment of prolapse and are still used in elderly patients who carry a poor operative risk. A forgotten vaginal pessary is a rare entity now-a-days. Mostly, pessaries are well tolerated but when neglected may lead to serious complications including vesicovaginal and rectovaginal fistulas. Sometimes the pessary gets incarcerated and has granulation tissue which makes its detection and removal difficult. Most women present with a malodours discharge. There have been cases of carcinoma or fistula formation developing due to the chronic irritation caused by the pessary. In the United States, more than 50% of vesicovaginal and ureterovaginal fistulas occur after hysterectomy for benign diseases such as uterine fibroids, menstrual dysfunction, or uterine prolapse. Pelvic radiation is the primary cause of delayed fistula, which can occur from one month to many years after the initial radiation treatment. Radiation treatment is typically used to treat cervical or endometrial carcinoma. Vesicovaginal fistula may occur with or without cancer recurrence. In developing countries, obstetrical complications are the most common cause of vesicovaginal and ureterovaginal fistulas. Vesicovaginal and ureterovaginal fistulas are perhaps the most feared complications of female pelvic surgery. In developed countries, the most common cause of vesicovaginal fistula is gynecologic surgery. Although he was not the first to perform a surgical repair for vesicovaginal fistula, J. Marion Sims described a surgical approach using three surgical principles of fistula repair, as follows: excise all scar tissue, obtain fresh margins, and close the tract without overlapping suture lines. The commonly chosen surgical approaches for the correction of vesicovaginal fistula include the transabdominal and transvaginal approaches. Historically, the site of the fistula often dictated the surgical approach. Supratrigonal fistulas were typically approached transabdominally. Infratrigonal fistulas were corrected transvaginally. Most surgeons prefer the transabdominal approach for both supratrigonal and infratrigonal fistulas because access to the fistula is easier. Supratrigonal fistulas are more difficult to reach transvaginally. Currently, the transvaginal approach is preferred because it results in less morbidity. The transvaginal approach is the safest and most comfortable for the patient. However, if the fistula site is difficult to access transvaginally, the transabdominal route remains a safe alternative. Fistulas should be monitored periodically until all signs of inflammation and induration have resolved. Before embarking on fistula repair, the fistula tract should be well epithelialized and the vaginal wall should be soft and supple. The traditional approach has been to wait at least three and four months before attempting fistula closure. However, this philosophy has been challenged. Some surgeons have successfully closed the fistula with or without using a tissue interposition, such as Martius flap or peritoneal flap, without waiting months.

CASE PRESENTATION

Ninety one year old female gravida five para four cero one four with a retained gellhorn number six for four years for the treatment of pelvic organ prolapsed, lost to follow up after multiple missed appointments. After four years from the pessary placement in January 2007, patient walk in to the clinic complaining of vaginal bleeding and pelvic discomfort. After several years of chronic irritation, the pessary had created a membranous band distally to the pessary helding the pessary in situ, we were unable to remove the pessary in the clinic, patient did not tolerated the procedure very well.

Patient with multiple medical problems including hypertension, renal insufficiency and dementia, admitted to the hospital with urinary sepsis, after stabilization of her medical conditions and cleared for surgery, we proceed with surgical evaluation.

In the operating room after attempting different approaches for removal of the pessary, incised the pessary from the most external portion of the gellhorn pessary towards one side and then we pulled out from one side of the incised part of the gellhorn and we slided off, rotating the pessary. After removal, we identified a vesicovaginal fistula associated with the chronic erosion of the pessary over the anterior vaginal wall. The base of the pessary had migrated completely inside the bladder and the fistulous opening measured four centimeters. The fistula was repaired with a double closure, then a vertical incision was made over the labia major and labial fat was exposed. The Fat pad was movilizad starting anteriorly. The

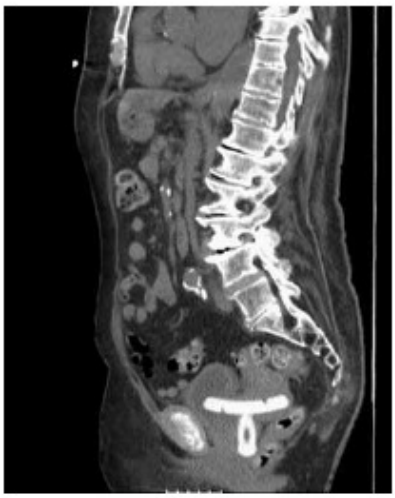
Continued on page 7

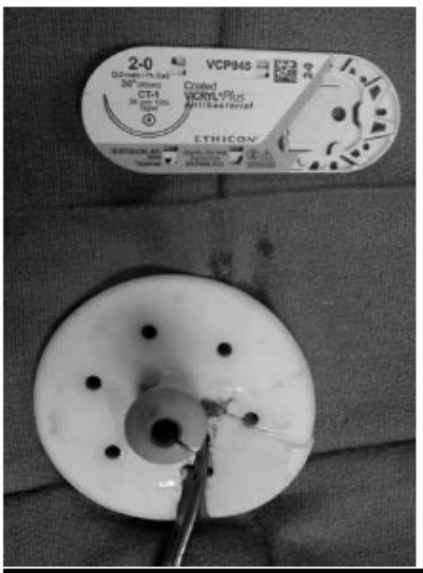
Martius Bulbocavernosus Fatty Tissue Flap Plasty for the Treatment of Vesico-Vaginal Fistula created by Erosion of the Retained Gellhorn Pessary in a Ninety-One Year Old Patient (Continued)

pudendal vascular supply entering the fat pad posteriorly, Vaginal flap was closed over the repair with absorbable suture and the vaginal mucosa closed on top. Urethral catheter was kept for six weeks. The postoperative course was smooth in the patient, with no major complication. Patient was discharged from hospital in postoperative day five, Patients was evaluated in several follow ups being asymptomatic.

DISCUSSION

Although forgotten foreign bodies in vagina in adults are rare, there have been several cases of forgotten foreign bodies in vagina in adults and majority of cases of foreign body are found in children. Toys, metallic glasses, screws, hair sprays, plastic covers and drinking glass etc. have been found to be into the vagina. Serious complications like fistula formation, and bowel obstruction have been reported with retained foreign body in vagina. Various complications have been reported with retained pessary in adults including fistula formation, bowel obstruction, malignant change. Other complications are incareration, ulceration, metaplasia, intestinal obstruction, urosepsis and hydronephrosis. It is important to bear in mind that a forgotten pessary may be the cause of foul smelling discharge in an old lady. Such women often fail to follow up and develop some complication. In these forgotten foreign bodies underlying malignancy should always be ruled out. Such women do not consult their physician for follow-up, either because they remain unaware of the presence of a foreign body in the vagina or have completely forgotten it, as in our case. Removal of the foreign bodies which may be impacted in the vagina and associated with erosion and granulation tissue can be difficult and traumatic. It can be removed only under sedation and vaginal trauma and bleeding can be immediate problems associated with the forceful removal of the foreign bodies from the vagina. Irrigation with an antiseptic solution and packing with a pad can be a solution to these problems. Surgical treatment by vaginal approach offers great therapeutical efficacy in the primary and recurrent vesicovaginal fistulas, even in cases when previous abdominal surgical treatment had failed and the indicated approach in patients with increase morbility and mortality risk. Using the Martius graft (interpositional axial flap) Improved graft vascularity, on Martius flap vascularity is known to derive from either the internal pudendal or external pudendal artery. We believe that interposition of labial pad of fat helps improve the success of repair in giant vesicovaginal fistulae created for erosion associated with a pessary and a great option as a technique for patients with increased surgical risk. In summary, is important to consent patients for any treatment options, addressing need for routine follow ups as needed, mostly in older patients whom easily forget appointments. Also is important to consider the option of using a Martius graft as a practical surgical alternative for treating patients with vesicovaginal fistula associated to erosion of a retained pessary. Placement of a Martius graft may be especially useful in cases where the vaginal epithelium is unhealthy, the defect is too large to be reclosed, or when primary closure is unsuccessful. As with any tissue graft, it is important to ensure that there is no evidence of infection to maximize success of the procedure. Further investigations are warranted to determine the feasibility, long-term effectiveness, and applicability of using a Martius graft to treat patient having this complication.





REFERENCES

1. Dhiya p, Agarwal u, Sangwan k, Chauhan m. Long retained foreign body: a case report. Arch gynecol obstet 2003 oct, 268(4): 324-4. Epub 2002 oct.

2. Malatyalioglu e, Alper t, Kokoo, an intavaginal foreign body of over 25 years duration. Acta obstet gynecol scand 1994:78;616-617.

3. Nwosu ec, Raos, Igwekec, Hamed h. Foreign objects of long duration in the adult vagina. J obstet gynecol 2005 oct ;25 (7) : 737-9.

4. Biswas a , Das hs, an unusual foreign body in the vagina producing vesico vaginal fistula. J indian med assoc 2002 apr;100(4):257,259.

5. Puneet , Khanna a, Khanna ak. Intravaginal foreign body – a rare case report of large bowel onstruction. J indian med assoc 2002 nov; 100(11) :671

6. Russel jr. The dangerous vaginal pessary bmj 1961 ; ii : 1595-97.

7. Burrows j. Case of Long Retained Pessary. Prov Med Surg J. 1849 December 12; 13(25): 680.

8. Sandip P Vasavada SP. Vesicovaginal and Ureterovaginal Fistula.

Rafael Julian Arcone, M.D., PGY-3, Ob-Gyn Resident, Obstetrics and Gynecology Department, Texas Tech University Health Sciences Center.

Le Kim, Medical Student, Obstetrics and Gynecology Department, Texas Tech University Health Sciences Center.

Robert Vera, M.D., Obstetrics and Gynecology Department, Texas Tech University Health Sciences Center.