

CASE REPORT

Delayed vaginal vault dehiscence with irreducible omental prolapsed after laparoscopic hysterectomy

Sanjay Brahmbhatt, Jitendra Mistry, Yagnesh Patel, Jayesh Shah

Corresponding author: Dr. Jitendra Mistry, Mission Gastrocare, an Institute of Gastroenterology, Liver – Pancreas & GI cancer sciences 02/03 – Purv Prime, Near Natubhai Circle, Gotri road, Vadodara - 390007, Gujarat, India; Email : jitlap@gmail.com

Distributed under Attribution-Non Commercial – Share Alike 4.0 International (CC BY-NC-SA 4.0)

ABSTRACT

Vaginal vault dehiscence after hysterectomy is an uncommon complication which usually happens after 5 – 7 weeks of surgery, delayed vault dehiscence is rare. Abdominal viscera can prolapse through vault dehiscence; the commonest organ is small bowel loops although other organs like omentum, colon, urinary bladder, appendix and even multi-organ prolapse have been reported in the literature. Vault dehiscence with abdominal organ prolapse needs immediate correction as complications like obstruction, perforation and peritonitis can happen if not corrected. Various approaches have been described for correction, we report a case of delayed dehiscence of the vaginal vault; a year after laparoscopic hysterectomy with irreducible omental prolapse through it, which was managed by combined trans-abdominal laparoscopic and trans-vaginal approach.

Keywords: Trans-vaginal omental prolapse, vault dehiscence, vaginal vault dehiscence, post-hysterectomy vaginal vault dehiscence, vault rupture, omental prolapse.

Vaginal vault dehiscence after hysterectomy is an uncommon complication. It may happen after other pelvic surgeries as well, its frequency ranges from 0 – 7.5%¹. It commonly happens after 5 – 7 weeks of surgery²; delayed dehiscence is rare. Abdominal organs may prolapse through vaginal vault dehiscence. The small bowel is the commonest organ to prolapse, other organs, as well as multi-organ prolapse, is also reported³. Abdominal organ prolapse needs urgent treatment to prevent complications. We report a case of delayed vaginal vault dehiscence with omental prolapsed a year after the laparoscopic hysterectomy managed with a combined laparoscopic and vaginal approach.

Case

A 48 year old female patient with an obstetric history of two full-term vaginal deliveries and history of laparoscopic hysterectomy with anterior colporrhaphy for uterine prolapsed a year ago, presented with complaints of pelvic discomfort for 2 months. She had a recent history of constipation. She consulted elsewhere for the same and was

managed conservatively. She had something coming out per vagina for 2 days with an increase in pelvic discomfort. She did not have any history of unconventional sexual intercourse recently. She was post-menopausal and was not on any hormonal therapy. Her vitals were within normal limits, abdomen was soft, and there was no guarding or rigidity. Perineal examination revealed abdominal contents which appeared like small bowel loops covered with a membrane over it descending through the vaginal introitus (figure 1). The prolapsed part was congested and discoloured; and it was not possible to reduce the content at that moment in the out-patient department, so the content was wrapped with a moist mop, and she was put in a supine position. She was admitted, IV fluids and antibiotics were given, and Foley's catheterization was done. Her haematological and biochemical laboratory reports were normal. Urgent CT scan (figure 2) of abdomen and pelvis was done which revealed prolapse omentum. There was no bowel in the content, there was no intra-abdominal

Received: 7th March 2021, Peer review completed: 20th May 2021, Accepted: 7th June 2021.

Brahmbhatt S, Mistry J, Patel Y, Shah J. Delayed vaginal vault dehiscence with irreducible omental prolapsed after laparoscopic hysterectomy. The New Indian Journal of OBGYN. 2022; 9(1): 188-90.



Figure 1: Picture of perineal examination showing herniated peritoneal contents through vaginal introitus, appeared like a bowel loops covered with membrane.

collection.

She was taken up in operation theatre immediately and reduction under anaesthesia was attempted, reduction was not possible due to severe oedema and adhesions. Diagnostic laparoscopy was done; which revealed omentum along with

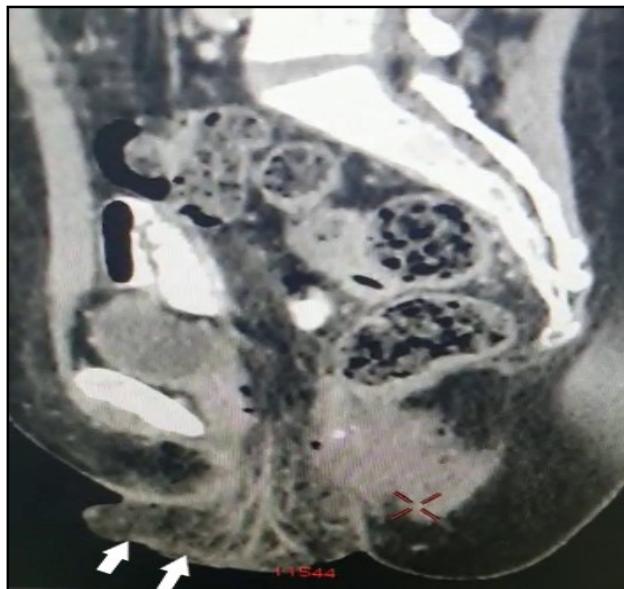


Figure 2: CT scan picture (sagittal section) showing prolapsed omentum through vagina.

small bowel loops going into the pelvis. Laparoscopic adhesiolysis was done and the margin of the vaginal vault was identified through which the omentum was prolapsed

(figure 3). The perineal surgeon pushed the contents through the vagina and the laparoscopic surgeon gently pulled it through the abdomen. Once the content was reduced, they were inspected thoroughly. As the prolapsed omentum was covered with granulation tissue and was looking unhealthy, it was excised and removed through a large rent in the vaginal vault. The margin of the vaginal vault was freshened up and closed with polyglactin 2 – 0 suture. The patient's postoperative recovery was uneventful, she was discharged on postoperative day 2 and with 6 months of follow-up, she is doing well.

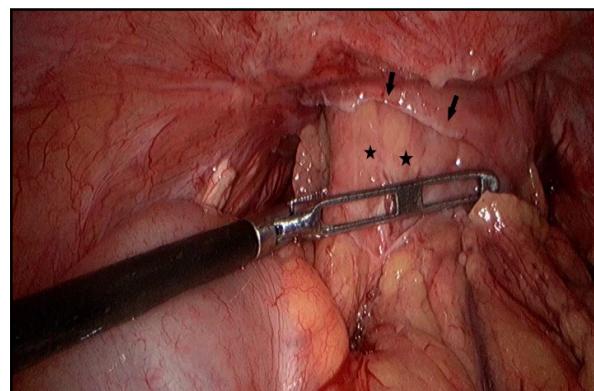


Figure 3: Operative picture (laparoscopy) showing omentum prolapsing through vaginal vault, vaginal vault margin is appreciated.

Discussion

Vaginal vault dehiscence is an uncommon complication after hysterectomy, it typically occurs 5 – 7 weeks after hysterectomy; following sexual intercourse when healing of the sutured cuff is not complete². Delayed dehiscence is rare, in our case, the vault dehiscence with omentum prolapse occurred 1 year after the index surgery. Literature suggests a higher risk of vault dehiscence after total laparoscopic hysterectomy⁴ compared to vaginal and abdominal hysterectomy. Old age, diabetes, previous radiation, post-menopausal status, tobacco chewing, smoking, steroids, inadequate vault closure etc are risk factors for vault dehiscence^{3, 4}. Patient may present with vaginal discharge, pelvic discomfort, genital pain, and something coming out of vagina.

Evisceration of abdominal contents through vaginal vault dehiscence occurs in 35 – 67% of cases¹. The commonest organ to eviscerate is the small bowel; although the colon, omentum, adnexa, urinary bladder, appendix and sometimes multi-organ evisceration have been reported in the literature^{2, 3}. Trans-vaginal prolapse of abdominal viscera is

an emergency due to possible catastrophes like bowel ischemia, obstruction and perforation. Wrapping the contents with a moist mop is advisable to avoid further damage and patient needs to be put in a supine position.

There is no standardized approach for the correction of vaginal vault dehiscence with abdominal content prolapse. There are three options described in the literature, a) transvaginal approach, b) trans-abdominal open approach and c) trans-abdominal laparoscopic approach²⁻⁴. The selection of approach depends on various factors like the content of the evisceration, reducibility and ischemia of the contents, intra-abdominal collection, available expertise and patient's stability. The transvaginal approach seems the least invasive. It is feasible when contents are small and easily reducible without evidence of ischemia or intra-abdominal collection. The main limitation of the trans-vaginal approach is limited exposure to examine the abdominal contents. The trans-abdominal approach is preferred when contents are ischemic, not reducible, presence of abdominal signs and intra-abdominal collections. Trans-abdominal open approach gives better visibility of abdominal contents and resection of the bowel or omentum is easily feasible. The main drawback of the open approach is morbidity associated with open surgery. The laparoscopic trans-abdominal approach has advantages over both above approaches; it is a minimally invasive approach and allows visualisation of abdominal viscera. Combining laparoscopic and transvaginal approaches is helpful in difficult cases like ours where contents are not reducible due to adhesions and oedema. Reduced contents need to be examined well, any ischemic bowel or omentum needs to be resected to avoid sepsis and peritonitis. Proper vault closure is important after the reduction of the contents to prevent a recurrence.

Conclusion

Vaginal vault dehiscence after hysterectomy is uncommon, it usually occurs at 5 – 7 weeks after the surgery. Delayed dehiscence is rare. Various abdominal organs can prolapse through vault dehiscence, which needs to be

immediately corrected to prevent further complications. Combining laparoscopic with vaginal approach allows examination of abdominal contents well and helps in difficult situations where contents are not reducible. It gives the benefits of minimally invasive surgery.

Conflict of interest: None. **Disclaimer:** Nil.

References

1. Hur HC, Lightfoot M, McMillin MG, et al. Vaginal cuff dehiscence and evisceration: a review of the literature. *Curr Opin Obstet Gynecol.* 2016; 28: 297-303.
2. Matsuhashi T, Nakanishi K, Hamano E, Kamoi S, Takeshita T. Laparoscopic Repair of Vaginal Evisceration after Abdominal Hysterectomy for Uterine Corpus Cancer: A Case Report and Literature Review. *J Nippon Med Sch.* 2017; 84 (2): 90-5.
3. Zhou Y, Zhang Y, Liu W, Zhang W, Wang X, Yu X, et al. Spontaneous vaginal cuff dehiscence and evisceration of multiple organs: A case report. *Medicine (Baltimore).* 2018 Dec; 97(50): e13670.
4. Escobar PA, Gressel GM, Goldberg GL, Kuo DY. Delayed Presentation of Vaginal Cuff Dehiscence after Robotic Hysterectomy for Gynecologic Cancer: A Case Series and Review of the Literature. *Case Reports in Obstetrics and Gynecology.* 2016; 2016: 5296536.

Sanjay Brahmbhatt¹, Jitendra Mistry², Yagnesh Patel³, Jayesh Shah⁴

¹ Consultant Gynaecologist, Himalaya Hospital, Anand, Gujarat, India; ² HPB & GI surgeon, GI cancers surgeon, Mission Gastrocare, An Institute of Gastroenterology, Liver – Pancreas & GI Cancer Sciences, Vadodara, Gujarat, India; ³ Consultant Gynaecologist, Himalaya hospital, Anand, Gujarat, India; ⁴ Consultant Radiologist, Shreeji X ray and imaging, Anand, Gujarat, India.