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Case Report

Laparoscopic management of post coital vaginal cuff dehiscence after total laparoscopic hysterectomy

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ABSTRACT

Vaginal cuff dehiscence is a rare postoperative complication following total laparoscopic hysterectomy. Timely recognition and surgical repair is essential for successful management. A 39 year old female, para2 live2, presented with symptoms of watery vaginal discharge and vague pelvic pain associated with sexual activity, three months after total laparoscopic hysterectomy. Per speculum examination revealed a 3 cm rent in vaginal cuff without any evidence of bowel evisceration. Diagnostic laparoscopic assessment along with vaginal cuff repair done. The incidence of vaginal cuff dehiscence after total laparoscopic hysterectomy may be attributed to over use of electrocautery, prolonged inflammatory response, and suturing techniques. Abdominal, vaginal and laparoscopic approaches are the routes for repairing vaginal cuff dehiscence. However, it depends on clinical presentation and surgeon's expertise. Careful history and examination guides the clinician to arrive at correct diagnosis and knowledge of appropriate medical and surgical interventions are of paramount importance for treatment of vaginal cuff dehiscence.

Keywords: Vaginal cuff dehiscence, Total laparoscopic hysterectomy, Pelvic pain, Laparoscopic approach and repair

INTRODUCTION

Vaginal cuff dehiscence is defined as partial or full thickness separation of anterior and posterior edges of vaginal cuff that was previously closed. Though it is uncommon, the prevalence of vaginal cuff dehiscence is on rise due to increase in use of minimal invasive techniques for hysterectomy. Vaginal cuff dehiscence is a potentially life threatening complication after total laparoscopic hysterectomy as it causes a direct connection between peritoneal cavity and vagina. It may be accompanied with bowel evisceration causing signs and symptoms ranging from minimal vaginal discharge to profuse bleeding, bowel ischaemia and infection that requires emergency intervention. Patient may present with symptoms like nausea, vomiting, acute abdominal or pelvic pain, vaginal bleeding, watery vaginal discharge.[1] Here in, we report a case of post coital vaginal cuff dehiscence following total laparoscopic hysterectomy, successfully repaired through laparoscopic approach after exploratory laparoscopy.

CASE REPORT

A 39-year-old female P2L2, presented to our OPD with complaints of watery vaginal discharge and acute pelvic pain of 2 days duration. There is no history of fever, nausea or vomiting. Three months prior, she underwent total laparoscopic hysterectomy with bilateral salphingectomy in our hospital for heavy menstrual bleeding with fibroid uterus and chronic PID unresponsive to medical treatment. In her initial surgery, there was a posterior intramural fibroid for which we proceeded with total laparoscopic hysterectomy. The vaginal vault has been dissected with bipolar electrocautery and closed with 1-0 vicryl interrupted sutures. HPE revealed fibroid uterus with

features of chronic cervicitis. The postoperative period was uneventful and 1 month follow up was unremarkable with properly healed vaginal cuff.

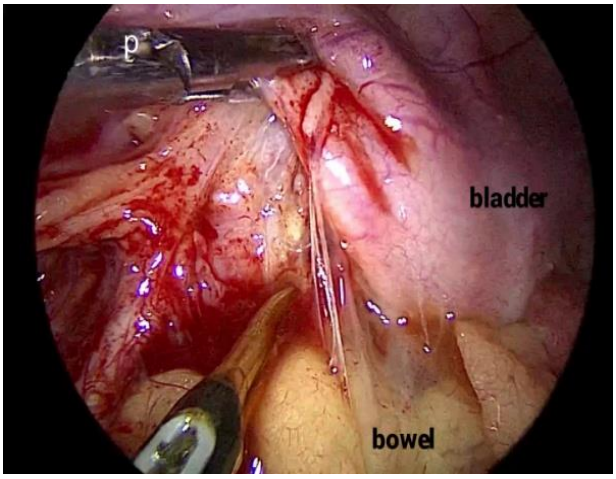

Figure 1: Adhesions in pelvis.

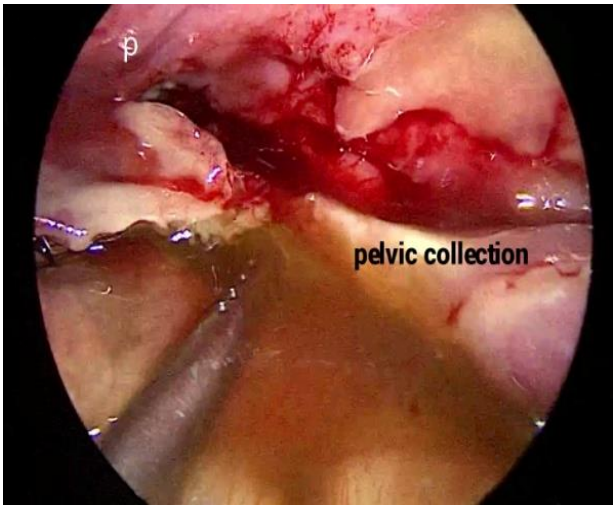

Figure 2: Pus collection in pelvis.

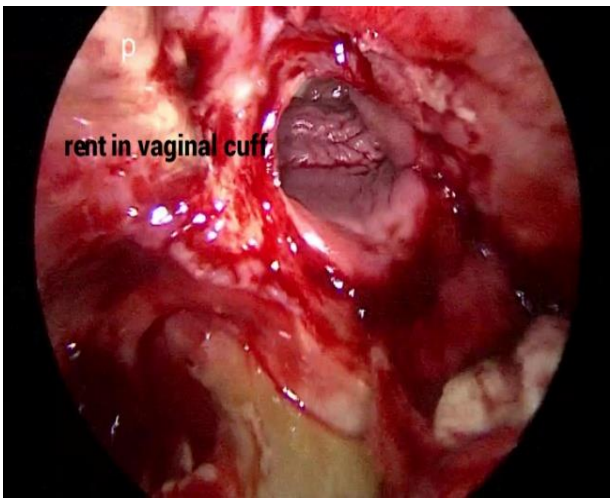

Figure 3: rent in vaginal cuff

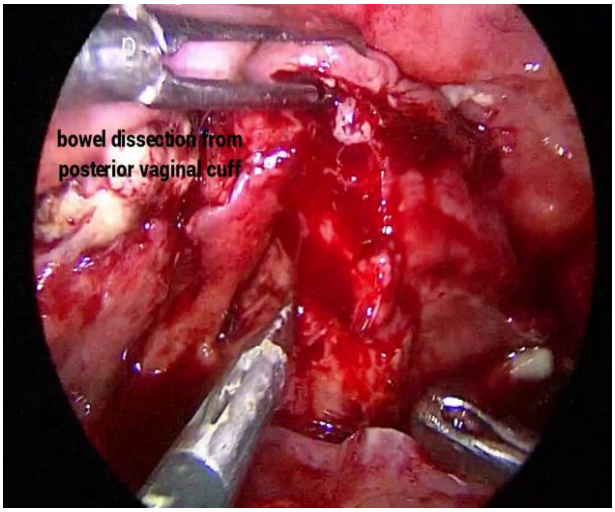

Figure 4: Posterior rectal dissection

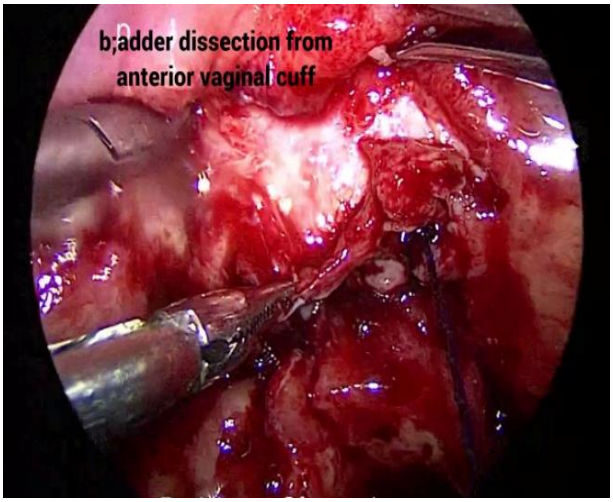

Figure 5: Anterior bladder dissection.

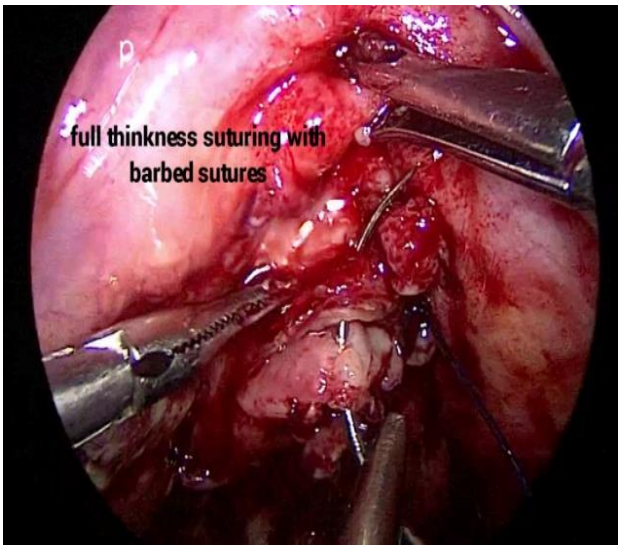

Figure 6: Full thickness vault suturing.

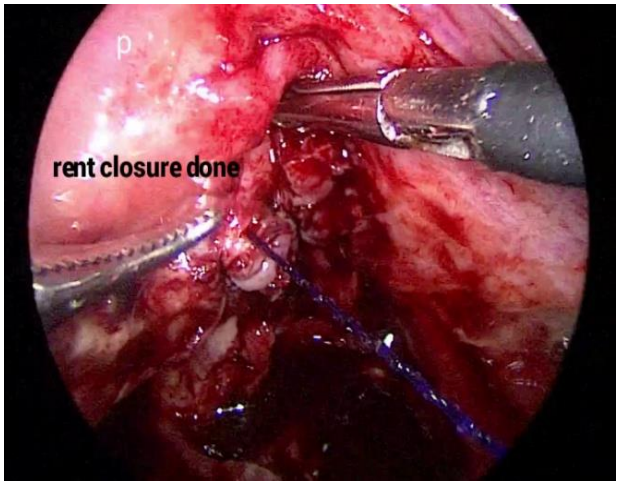

Figure 7: Rent closure completed.

Exactly after 3 months, she presented with complaints of acute pelvic pain and watery vaginal discharge following sexual intercourse for the first time since surgery.

Physical examination shown tenderness in lower abdomen.

Speculum examination revealed a 3 cm rent in vaginal cuff and watery discharge, not foul smelling with no evidence of any intestinal evisceration.

The vagina was packed with warm moist guaze and preoperative laboratory work up was done which shown leukocytosis. Under appropriate broad spectrum antibiotic coverage, patient was taken up for exploratory laparoscopy and vaginal cuff repair.

Intra operatively, bowel and omental adhesion were seen with pus collection in POD for which proceeded with adhesiolysis and aspiration of pelvic collection. Cystoscopy was done to rule out bladder injury.

Vaginal vault was inspected, bladder and bowel dissection done, edges were debrided and sutured with delayed absorbable 1-0 vicryl barbed continuous sutures involving full thickness vaginal wall laparoscopically.

Post operative period was uneventful and the patient was discharged the next day.

DISCUSSION

Vaginal cuff dehiscence is an uncommon complication after hysterectomy. Cuff dehiscence may vary from partial opening of vaginal wound to serious evisceration of abdominal viscera into vagina.

A review of literature by Hur et al found the risk factors for vaginal cuff dehiscence consist of age, vaginal atrophy, chronic steroid usage, early resumption of coital activity, post operative infection and hematoma, foreign objects and increased intra abdominal pressure such as chronic cough and straining with defecation.[2]

The incidence of vaginal cuff dehiscence is higher following robotic assisted hysterectomy (1.64%) and total laparoscopic hysterectomies (0.64 – 1.35%) compared to abdominal and vaginal route.[3]

Presumptive explanation of vaginal cuff dehiscence range from use and mode of electrosurgical techniques for vaginal vault opening, less magnification of surgical field resulting in shallow tissue bites and poor knot integrity for vault closure, prolonged inflammatory phase affecting tissue repair and wound infection.[5]

Numerous surgical modalities are proposed to reduce the risk of vaginal vault dehiscence which include use of monopolar current on cutting mode, securing cuff hemostasis with sutures rather than electro coagulation and use of two layer cuff closure.[6]

Reparation of vaginal wall dehiscence can be performed through abdominal, vaginal or laparoscopic route. However, the modality of treatment depends upon various factors such as clinical presentation and stability of the patient, surgeon's expertise and availability of equipments.[7]

Minimal invasive surgery is preferred currently over abdominal surgery due to minimal blood loss & pain, less scar, less days of hospitalisation and speedy recovery.[8]

CONCLUSION

Of all types of hysterectomies, the rate of vaginal dehiscence is high after total laparoscopic hysterectomy. Acute pelvic pain after vaginal intercourse in a patient with recent history of total laparoscopic hysterectomy should alert of vaginal cuff dehiscence as differential diagnosis. Laparoscopic, abdominal and vaginal approach are routes of repairing vaginal cuff dehiscence. However it depends on clinical presentation and expertise of surgeon.

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Ethical approval: Not required

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