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Coitus Induced Vaginal Evisceration Through Vaginal Cuff Dehiscence After Radical Hysterectomy - A Rare Case Report

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Abstract

Vaginal evisceration of small bowel through vaginal cuff dehiscence after total abdominal hysterectomy is a rare complication in case of pre-menopausal women, which is sporadically mentioned in the literature. We have reported a case of small bowel evisceration through vaginal cuff dehiscence within two hours of first vaginal intercourse following 48 days of Radical hysterectomy which was indicative for grade III endometrial adenocarcinoma and then followed by 10 days' adjuvant chemotherapy. We escort the patient immediately to the tertiary center for multidisciplinary management. An emergency exploratory laparotomy was performed, and after reposition of the small bowel, the vaginal vault was repaired with interrupted sutures using Vicryl-1. The patient was discharged on 9th post-operative day in good condition. As because the post-coital vaginal evisceration through vaginal cuff dehiscence is a modifiable risk factor, we are highlighting on the counseling to avoid early coitus after hysterectomy especially in case of patients with endometrial carcinoma and on adjuvant chemotherapy. In such case, early coitus may arise potential life threatening surgical emergency. So, we suggest arranging appropriate counseling for the patient and her spouse, after gynaecological oncology surgery to resume their coital activity minimum after 8-12 weeks' post-surgery.

Keywords: Small bowel; Evisceration; Vaginal cuff dehiscence; Coitus; Hysterectomy

Introduction

Following transabdominal hysterectomy, evisceration through vaginal cuff dehiscence (VCD) is a rare complication. In case of a pre-menopausal woman, after abdominal hysterectomy, coitus-induced small bowel evisceration through vaginal vault dehiscence is an extremely rare event [1]. In literature, the incidence of VCD reported only 0.032% after transabdominal hysterectomy. Around 8% to 48% VCD was reported due to vaginal intercourse. There is an increase of mortality rate up to 5.6% if VCD is associated with small bowel

evisceration. The likelihood of any intraperitoneal content evisceration is 67% after hysterectomy [2,3].

Coitus-induced VCD and intra-abdominal content evisceration is one of the important aetiology especially in premenopausal women. Commonly it occurs within first 3 months of surgery if coitus resumed, before proper wound healing. Till date, no evidence-based protocol is mentioned in literature in relation to the time when exactly to resume coitus after hysterectomy [3].

We have reported a case of small bowel evisceration through VCD within two hours of first vaginal intercourse following 48 days of Radical hysterectomy which was indicative for grade III Endometrial adeno-carcinoma and then followed by 10 days' adjuvant chemotherapy.

Our aim is to report this rare case of coitus induced small bowel evisceration through VCD after radical hysterectomy and to give emphasis on the counseling to avoid early coitus after abdominal hysterectomy especially in cancer patients who are on adjuvant chemotherapy. In such case, early coitus may arise potential life threatening surgical emergency.

Case Report

A 44-years-old P3 lady came to our accident and emergency department with the chief complaints of cramping abdominal pain, watery vaginal discharge, and protrusion of something through the vagina. On examination, she was vitally stable on arrival, her BP was 116/65 mm of hg, pulse rate 75 beats/min and afebrile, on local examination, the vaginal vault couldn't be palpated and there was protruded small bowel (around 2 cm) outside the vaginal introitus and continuous pouring of peritoneal fluid around the protruded small bowel. The protruded small bowel was appeared normal with no sign of ischemia or strangulation. The history revealed that she had vaginal sexual intercourse 2 hours before presentation and she had history of radical abdominal hysterectomy, 48 days before the presentation, which was indicative for grade III endometrial adeno-carcinoma. From the OT note findings we have found that she had abdominal total hysterectomy with bilateral salpingo-oophorectomy, bilateral para aortic lymphadenectomy and total omentectomy. The vaginal vault was closed by continuous suture using Vicryl-1.

The Post-operative period was unremarkable and she was discharged on 5th postoperative day. Then after five weeks of the radical hysterectomy she has received the first cycle of adjuvant chemotherapy. After examination, she was clinically diagnosed as a case of "coitus induced vaginal evisceration of small bowel through vaginal cuff dehiscence, Following 48 days of Radical Hysterectomy on adjuvant chemotherapy". She was given emergency conservative treatment by covering the warm sterile gauze on the protruded small bowel and given stat dose of I/V antibiotics (Inj. Ceftriaxone 1 gm and Inj. Metronidazole 500 mg). Base line investigations were done and found unremarkable except high count of WBC 19.9 103/UL, Blood group was "B" Rh- negative, haemoglobin 10.9 gm/dl, CRP 8.7 mg/l, lactate 3.1 mmol, Platelet count 215 103/UL.

But as our hospital is secondary care centre, we escort the patient immediately to the tertiary center for multidisciplinary management. Then an emergency exploratory laparotomy was performed. The abdomen was opened by an infra umbilical longitudinal midline incision. Upon opening the abdominal cavity, the vaginal cuff found to be opened and through the VCD small bowel herniation was observed. The loops of small bowel were normal in appearance, no ischemia no adhesion or strangulation were seen. After reposition of the small bowel, peritoneal irrigation was done with normal saline and the vaginal vault was repaired with interrupted sutures using Vicryl-1. Her postoperative course was uneventful and healing of wound was satisfactory. After complete recovery, she was referred to the medical oncology team for further chemotherapy.

Discussion

The evisceration of intra-abdominal organs through VCD after radical hysterectomy are infrequently mentioned in the literature [4].

After any pelvic surgery VCD is reported within 3 days to maximum 30 years' post-surgery. Common presentations of VCD includes abdominal and pelvic pain (58% to 100%), watery vaginal discharge or bleeding (33% to 90%) and intra-peritoneal organ evisceration up to 70% [2]. Usually, first 3 months of the postoperative period is the most vulnerable time for VCD [5]. The most common organ that is herniated through VCD is small bowel and especially the terminal ileum, but the evisceration of other viscera like omentum, salpinx or epiploic appendices also have been reported in the previous studies [4].

In previous studies, the risk factors were described based on surgical and non-surgical aetiology. surgical causes of VCD include the technique of hysterectomy, vaginal vault closure method, and colpotomy approach. During vault closure use of electrocautery to secure haemostasis may increase the chance of VCD.

Non-surgical factors that causes VCD includes restarting coitus before proper wound healing, operative site infection, smoking, prolonged steroid use, malnutrition, post-operative chemotherapy or radiotherapy, constipation, vaginal trauma,

Valsalva maneuver and many other risk factors are described in literature [3,5].

In case of our patient the presentation was typical, that was abdominal pain watery vaginal discharge and protrusion of small bowel through VCD following two hours of first vaginal sexual intercourse after 48 days of radical hysterectomy. As our patient was immuno-compromised due to her malignant condition and was on adjuvant chemotherapy, may be the wound healing process was slow and the vaginal coitus, acts as a triggering factor to occur vaginal evisceration of small bowel through VCD.

In pre-menopausal women, sexual intercourse before the proper healing of the vaginal vault is the main aggravating factor for VCD, whereas in post-menopausal patients it may occur spontaneously [6,7]. In young patients post-coital VCD may be related to weakness of connective tissue of upper vaginal wall [8].

While comparing the abdominal and vaginal hysterectomy, in case of abdominal hysterectomy the cuff disruption is common whereas after vaginal hysterectomy enterocele occurred through the posterior vaginal wall and these lesions can be seen after extensive oncology surgery [9].

Similar to our case is reported by Kahramanoglu et al., after 45 days of laparoscopic type 2 radical hysterectomy and pelvic lymph node dissection for grade II squamous cell cervical carcinoma the patient was presented with VCD and small bowel evisceration through the vault following vaginal sexual intercourse [3].

Another case was reported that a 50-year-old woman 13 weeks after abdominal total hysterectomy and bilateral salpingo-oophorectomy for endometriosis presented with VCD and small bowel prolapse which occurred one hour after vaginal coitus [8].

There is another reported case where patient complaint VCD after vaginal sexual intercourse, 2 years after abdominal hysterectomy which was done for abnormal uterine bleeding [1]. So, the exact time of resumption of coital practice after hysterectomy is debatable.

In previously reported cases they mentioned that after oncological hysterectomy surgery, sexual abstinence is advisable for 8-12 weeks postoperative [3,5].

The initial management for VCD with evisceration includes fluid resuscitation, to cover the exposed bowel with warm saline soaked sterile gauze and intravenous antibiotic coverage [1]. For our case, after her presentation to us, we took all necessary initial resuscitative measures before escorting the patient to tertiary care for surgical intervention. VCD with intra-peritoneal organ prolapse is a surgical emergency and immediate surgical repair is considered [1,10].

The available studies in literature recommend that none of the abdominal, vaginal or laparoscopic approach for VCD repair is superior to each other. The choice of the route to repair VCD depends on patient stability, degree of eviscerated organ damage and the presence of expertise [2].

Traditionally an exploratory laparotomy is suggested to repair VCD. Vaginal approach for VCD repair can be considered if the prolapsed bowel has no sign of ischemia or strangulation and if the vascularity is intact [11].

The evisceration of bowel through VCD may cause deleterious complications which include peritonitis, septicemia, bowel ischemia and necrosis, so an emergency surgical intervention is strongly recommended [1,4,6].

Conclusion

Post coital VCD along with small bowel evisceration is a detrimental complication of pelvic surgery particularly hysterectomy [2]. In case of pre-menopausal women VCD and small bowel prolapse through dehiscence cuff is a rare event and commonly is related to post coital vaginal trauma. These complications are potentially life threatening and a surgical emergency. Prior to surgery the gynecologist might discuss this complication and its association with postoperative vaginal sexual intercourse and need to advise the patient and her spouse to avoid vaginal coitus for at least 8-12 weeks after surgery and, provide them the information about possible symptoms of post-operative cuff dehiscence, such as: protrusion of something through the vagina, pelvic and abdominal pain, watery vaginal discharge, vaginal bleeding. So, that the diagnosis and repair of VCD could be prompt and appropriate without delay. As post coital VCD is a modifiable risk factor so proper counseling may prevent this complication [1,2]. After gynaecological oncology surgery, patients should be counseled to resume their coital activity minimum after 8-12 weeks post-surgery [3-5].

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