



Fallopian Tube Prolapse After Hysterectomy: A Case Report

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Abstract

Introduction: The aim of this study was to describe clinical findings of prolapse of fallopian tube to vaginal vault following abdominal hysterectomy for multiple leiomyomas of uterine and to correlate it with other features.

Case Presentation: A patient with history of leiomyomas and abnormal uterine bleeding was admitted with abdominal pain and scheduled for abdominal hysterectomy. Intra operative inspection showed multiple leiomyomas of uterine. One year after operation of total abdominal hysterectomy, the patient presented with abdominal pain, dyspareunia, and purulent vaginal discharge and therefore, referred to our center for further evaluation. In the vaginal examination, a protruding red mass with fibrotic fimbria was observed. The right fallopian tube (FT) with its fimbria prolapsed to vaginal vault as a granulation tissue was removed from vaginal cuff and sent to pathology. The pathologist reported fallopian tube tissue. Post-operative course was uneventful and the patient was discharged on 2nd day of post hysterectomy with good general condition. Six-month follow-up showed abolished purulent discharge. The site of resected vaginal cuff was intact in vaginal examination.

Conclusions: Intra vaginal prolapse of the fallopian tube is a rare sequel of hysterectomy. Clinicians should be aware of this disregarded sequel when dealing with post-hysterectomy vaginal discharge.

Keywords: Gynecology Surgery, Prolapse of Fallopian Tube, Vaginal Discharge

1. Introduction

Hysterectomy as a common major gynecology operation may be associated with a rare postoperative complication of prolapse of the fallopian tube (FT) into the vaginal vault. The incidence of normal and pliable FT prolapsed into vaginal vault is rare and a few cases have been reported as a complication of post-hysterectomy so far. Gynecologists may miss the detection of this disregarded sequel of hysterectomy due to its rarity when evaluating post-hysterectomy infected vaginal discharge (1). During past 34 years, only 60 cases of prolapse of FT have reported in medical literature, and careful literature review revealed that a few cases of this complication were related to the presence of prolapsed FT as a granulation tissue in vaginal cuff. The type of surgical approach has not affected the rate or prevalence of prolapse of FT and this complication has been reported in all types of hysterectomy. In definition of prolapse of FT, prolapse of some portions of FT is needed that may or may not be associated with prolapse of related fimbrial end of FT. The two important predisposing factors for occurrence of post hysterectomy prolapse of FT are first,

an open way between peritoneal cavity and vaginal vault and second, a mobile and non-adherent FT. The risk factors for dehiscence of vaginal cuff following hysterectomy including thin and fragile tissue that does not take suture easily may be associated with suture line rupture. Another factor is low serum albumin that is indirectly related to low body mass index. Another factor is age of patient that indirectly affects prolapse of FT (2, 3). Lower age at time of hysterectomy is a sign of sexual activity. Early resumption of coitus in the postoperative period when wound healing is not complete may be associated with suture line dehiscence (4). 35% of cases with prolapsed FT occur after abdominal hysterectomy; however, most experts believe that the risk of cuff dehiscence increases in laparoscopic hysterectomy. We think that this discrepancy between results of these two surgical approaches is related to interpretation of obtaining results of both methods.

2. Case Presentation

A 45-year-old woman, G4 P4, was admitted to our clinic for the evaluation of abnormal uterine bleeding. She had history of fatigue and abdominal pain from 3 months earlier that treated with non-steroidal anti-inflammatory drugs. She had not complained of any gynecological problem other than menses disturbances and bleeding that was not evaluated for causative factors. Physical finding of cardiac and chest examination was unremarkable and abdominal examination revealed a mass with irregular counter over uterine in pelvic space. Chest x-ray was normal. Abdominal ultrasound revealed multiple leiomyomas of uterus. Trans-vaginal ultrasound confirmed existence of leiomyomas. Endometrial biopsy revealed no malignant cells or premalignant cells change disease. Laboratory exam revealed anemia (HB=10g/dL) an elevated erythrocyte sedimentation rate (12) and normal value of CA125 (24), which its normal range is 0 - 40 U/mL. Hepatic function tests were in upper normal ranges.

Abdominal inspection during operation revealed mobile and pliable left and right FT without any inflammatory reaction to surrounding tissue. Total abdominal hysterectomy was performed and bilateral ovaries and FTs were saved. The permanent pathologic examination documented leiomyomas of uterus. The patient was discharged to home on 3rd post hysterectomy day. One year after the operation, she had conferred again to the hospital with complain of abdominal pain during body movement and vaginal discharge. In ultrasound examination, no collection was found in the pelvic cavity. One month later, the patient had conferred again for a scheduled vaginal examination that showed a protruding red mass in vaginal cuff. The Pap smear findings were negative for dysplasia or neoplasia; however, a scattered cluster of glandular cells was noted. About 10 days later, the patient was admitted to the outpatient clinic with foul smelling vaginal discharge and history of concomitant bloody spotting during intercourse. On examination, a red outpunching tubular structure with a fimbriated end was detected at the vaginal cuff that extensively attached to vaginal cuff. A diagnosis of fallopian tube prolapsed was suspected in operating room with vaginal approach. This entrapped part of the suspected fallopian tube in vagina was grasping with a ring forceps, and suture was in base of fallopian tube. Subsequent pathological examination revealed that the removed tissue was the fallopian tube.

3. Discussion

It seems that prolapse of FT occurs in 1 out of 1100 of all total hysterectomy cases regardless of the type of surgical

method. The available data about this post hysterectomy sequel are related to case reports or case series that have not evaluated predicting factors for occurrence of this complication by advanced data analysis (5). In koks study, prolapse of FT occurred following abdominal hysterectomy, vaginal hysterectomy, total laparoscopic hysterectomy, and laparoscopic-assisted vaginal hysterectomy in 70.6%, 17.7%, 7.8%, and 3.9%, respectively, and in 11.8% of the patients, concomitant hysterectomy was performed with another surgical approach including abdominoplasty, anterior colporrhaphy, and left oophorectomy. The hysterectomy procedure was associated with intra operative complications such as severe adhesion of uterine to surrounding tissues, fragile vaginal cuff, inflamed vaginal cuff, and massive bleeding. The intraoperative bleeding not only obscures surgical field but also reduces immune system function and subsequently increases infection of suture line as well as chance of cuff dehiscence and prolapse of FT (6). The most important post-operative complication in patients with subsequent prolapse of FT was vaginal cuff abscess that may be associated with suture line dehiscence of vaginal cuff and prolapsed abdominal organs; however, other sequels such as hematoma, bleeding of cuff, and intra-peritoneal migration of inserted vaginal drains were observed in 28.6% of post-hysterectomy prolapse of FT. Predicting factors related to vaginal cuff that increase the risk of prolapse of FT include inflammation of vaginal cuff rim in transecting site of vagina, hematoma of vaginal cuff, low serum protein, low hemoglobin values, abscess formation in vaginal vault, vaginal bloody discharge or infected discharge, cuff abscess, cuff cellulitis, and intra pelvic hematoma or sepsis. Postoperative morbidity related to intra-abdominal complication of hysterectomy was specifically reported in 48.6% of patients with prolapse of FT (7). Since sepsis is the most important factor in wound dehiscence, fever was considered to occur in 17.1% of FTP patients. Other morbidity endpoints that were reported in prolapse of FT patients include pelvic pain, anemia, and vaginal bleeding. Other factors that could be associated with increased abdominal pressure in post-operative period and increased risk of prolapse of FT include subphrenic abscess, adult respiratory distress syndrome, urinary tract problems, pseudo obstruction of colon or ileus, chronic cough, respiratory disorders, and severe postoperative constipation (8). The correct diagnosis of symptomatic prolapse of FT occurred only in 41% of the patients; however, other pathologies such as granulation tissue, adenocarcinoma, vesico-vaginal fistula, prolapsed bowel, peritonitis, salpingitis, and incontinence were diagnosed in 60% of the patients with prolapse of FT (9).

3.1. Conclusion

Prolapse of the fallopian tube into the vaginal vault is a rarely reported complication that may occur after hysterectomy. Clinicians may miss the diagnosis of this disregarded complication when dealing with post-hysterectomy vaginal bleeding.

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