

Post-hysterectomy Fallopian Tube Prolapse: Elementary Yet Enigmatic

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Abstract

Fallopian tube prolapse following hysterectomy should be kept in mind when a patient presents with pain, discharge, dyspareunia or an obvious lesion at the vault. Combined laparoscopic and vaginal approach should become the standard of care in management of such cases.

Keywords: fallopian tube prolapse, post-hysterectomy tubal prolapse, laparoscopic salpingectomy

Özet

Histerektomi Sonrası Fallop Tüpü Prolapsusu

Histerektomi sonrasında ağrı, akıntı, dispareuni veya vajina kubbesinde belirgin bir lezyon ile başvuran kadınlarda fallop tüpü prolapsusu akıldan tutulmalıdır. Bu vakaların yönetiminde laparoskopik ve vajinal yaklaşım, birlikte kullanılacak standart yaklaşım olmalıdır.

Anahtar sözcükler: fallop tüpü prolapsusu, histerektomi sonrası tuba prolapsusu, laparoskopik salpenjektomi

Introduction

Fallopian tube prolapse after hysterectomy is a rare occurrence, but also one that is often under-reported. To date, some 100-odd cases have been reported in literature, since the first such report by Pozzi in 1902, just over a hundred years ago (1). Almost two third of these cases have been reported to occur after vaginal hysterectomy (2), probably due to non-closure of the vault and pelvic peritoneum (3). The first two cases to occur after abdominal hysterectomy were described in 1955 by Funnell et al. (4). The incidence in our own hospital is 0.2 per 1000, since only 2 cases have occurred over the past 20 years, out of 9870 hysterectomies performed during this time, 2/3rd of them being abdominal and the remainder vaginal.

Two cases of fallopian tube prolapse (FTP) which were recently managed in our setup are described, both of which presented with FTP following abdominal hysterectomy. Also, both cases occurred in the setting of an uncharacteristic

postoperative period and standard operating technique, thus lending credence to the fact that there may be other predisposing factors that are yet to be identified.

Mrs. A, a 35 year old, para 2, presented eight months after hysterectomy symptomatic of blood stained discharge per vaginum for the past six months. The hysterectomy had been performed at a different centre for dysfunctional uterine bleeding, and the patient carried with her a Pap smear report which showed severe dysplasia. Speculum examination revealed a polypoidal excrescence through the apex of an otherwise healthy vaginal vault. The mass looked like fimbrial end of fallopian tube. On pelvic examination, the 2x2 cm mass was firm, but mildly tender. Colposcopy done in view of the referral diagnosis was unremarkable. Since there was no evidence of acute pelvic inflammation, biopsy was taken at the same sitting. Biopsy elicited a painful sensation (uncharacteristic for a growth) and moderate bleeding which was controlled by packing. Histopathology revealed fimbrial end of fallopian tube with dense acute on chronic salpingitis. The patient underwent a combined vaginal and laparoscopic right total salpingectomy (Figure 1). The part prolapsing into the vault was removed vaginally. Vaginal mucosa was separated from the underlying fascia circumferentially around

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the tube by sharp dissection. Peritoneum was incised and the part visible vaginally was excised and a suture with ends left long was placed at the highest part of the tube accessible vaginally to allow easy identification per abdominally. The vault was closed with interrupted sutures. The remainder of the tube was removed laparoscopically through the 10 mm port, after dissecting adhesions between the tube, ovary and infundibulopelvic ligament. The patient made an uneventful postoperative recovery.

The second case, Mrs S, a 35 year old, para 4, underwent total abdominal hysterectomy at our centre for fibroid uterus with polymenorrhagia. As a routine, pelvic peritoneum was not closed after vault closure by interrupted sutures. Immediate postoperative period was uneventful and patient was discharged on postoperative day three. Three months later she presented with complaints of dull aching pain lower abdomen and discharge per vaginum, which was intermittent for the past two months. Speculum examination revealed what appeared to be granulation tissue at the vault (Figure 2). Keeping the previous case in mind, biopsy was resorted to. Biopsy confirmed bits of fallopian tube tissue with inflammatory infiltrate. Vaginal excision of prolapsed left tube, followed by closure of the vault under general anesthesia was done. Most of the tubal length could be removed vaginally. Laparoscopy was not attempted as patient was reluctant for a second abdominal procedure. Follow up visit at two weeks revealed no abnormality, but a month later patient was again symptomatic of vaginal discharge and lower abdominal pain. The vault was smooth and well healed but a tender mass was felt in the left fornix, and ultrasonography revealed a normal sized ovary with minimal septate fluid collection. The patient was managed symptomatically for pain and infection. However, she followed up after another month with complaints of recurrent lower abdominal pain with bouts of sharp discomfort. Patient was counseled and symptomatically managed in view of no abnormality being detected on clinical

examination and ultrasonography at that time. The patient has since then been on follow up, only occasionally complaining of vague lower abdominal pain, likely to be due to stretching of the remainder of the tube by adhesions to the vault, or pressure on the ovary. Laparoscopy has been offered to her for diagnosing and eliminating the cause of her pain, but patient is unwilling for the same. A complete removal by the vaginal route is not always possible owing to adhesions between the vault and surrounding structures.

Discussion

Wetchler and Hurt (5) have described the coexistence of 3 conditions for tubal prolapse: presence of a fallopian tube segment of sufficient length and ability to reach the vagina, defect in peritoneal closure and adequate opening within vaginal cuff. But, other predisposing factors have also been described, which include postoperative fever, bleeding, hematoma at the vault and vault infection which interfere with adequate healing (6). The presentation can be from soon after hysterectomy, as early as two months (7) or upto 8 years afterwards (8). Triad of symptoms is most often vaginal discharge, dyspareunia, and lower abdominal pain. Some patients may be asymptomatic (9).

The techniques of management vary from partial vaginal excision to total vaginal excision to combined abdominal and vaginal approaches. While total vaginal salpingectomy may be sufficient to annul the chances of recurrence, where adhesions or concomitant pelvic pathology are anticipated, a combined vaginal and laparoscopic approach is preferable (10). Whether the abdominal approach is by laparoscopy or laparotomy will be guided by the skill and experience of the surgeon. Despite 90 cases (11) being recorded as of 1998 and many more being added afterwards, standard textbooks of gynecology do not accord much mention to the condition or its operative management.



Figure 1. Per speculum examination showing prolapsed end of fallopian tube resembling granulation tissue at vault.

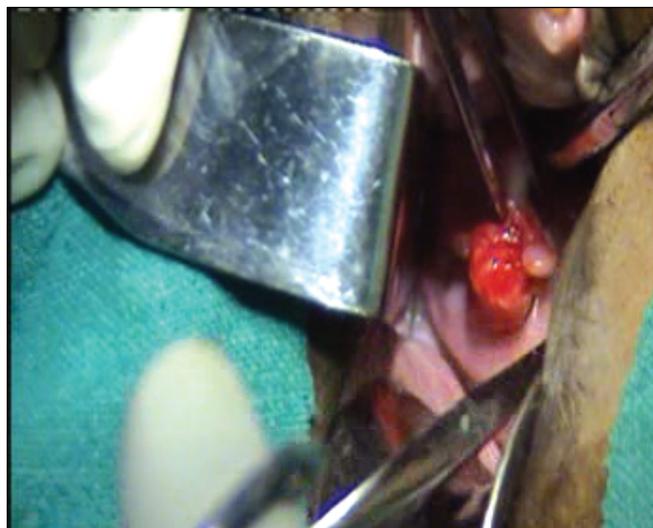


Figure 2. Total salpingectomy specimen removed by combined laparoscopic & vaginal approach.

These two cases are unusual as none of the predisposing factors for tubal prolapse, postoperative fever, hematoma, profuse vaginal discharge, or drains through the *cul-de-sac* were present. The occurrence after abdominal hysterectomy is also less common. The reason for FTP in our second case may be due to the slipping of ligature at the vaginal vault, possibly the thread was cut too short. This is our assumption because patient did not show any signs of infection. The diagnosis of tubal prolapse is not difficult if the condition is kept in mind. The most common differential diagnosis is granulation tissue at the vault, which can easily be ruled out by biopsy, and the fact that it is firmer than granulation tissue and also more tender (12).

Exfoliative cytology in a prolapsed tube, when stained by the Papanicolaou method consists of small ciliated columnar cells with prominent nucleoli, which may be confused with malignancy since it is very rare to find columnar cells in a vault smear (13). This happened in our first case, the smear probably being read by a less experienced cytopathologist. But, if the individual structure of the cells from the fallopian tube is kept in mind, it should not be difficult to differentiate them from cells of endometrial or endocervical origin if they appear in a vaginal smear. Further microscopic confirmation in doubtful cases can be done by performing immunohistochemical staining for cytokeratin (14).

Total salpingectomy has been recommended as optimal management because recurrent symptoms have been reported after partial salpingectomy (15). Although the most frequently recommended treatment is high vaginal ligation and excision of the tube followed by closure of the vault defect per vaginum (16), the remaining portion of the tube has a tendency to adhere to the vault and cause persistent pain from traction, as happened in our second case. Laparoscopic surgery has a role in cases with dense intraperitoneal adhesions in enabling adequate mobilization of the prolapsed tube, allowing complete removal and resolution of symptoms (17).

Conclusion

The purpose of this article was to stress the role of operative technique in the management of tubal prolapse and to

describe an unusual presentation, mimicking dysplasia, not often mentioned in literature.

A concomitant vaginal and laparoscopic excision may be more satisfactory in terms of ruling out and treating pelvic pathology, dissecting adhesions and permitting *en-bloc* removal with the advantage of being minimally invasive.

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