

First report of a vaginal foreign body perforating into the retroperitoneum

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Pelvic examination of a 19-year-old woman with recurrent pain after multiple laparotomies revealed a 4.0 cm paracervical fibroepithelial polyp and tender fullness in the left pelvis. Abdominal exploration had normal findings, but exploration of the retroperitoneum revealed an encysted bottle cap that had eroded through the vaginal wall years before. (AM J OBSTET GYNECOL 1995;173:962-4.)

Key words: Foreign body, vaginal polyps, perforation by foreign body, pelvic pain

Foreign bodies in the vagina, usually easily identified and treated by removal of the object, are a common cause of pediatric vaginitis. However, persistent unidentified foreign bodies can produce serious sequelae such as rectovaginal and vesicovaginal fistulas.¹ These usually produce significant symptoms and are clinically apparent. We present the case of a young woman whose long-forgotten vaginal foreign body perforated into the retroperitoneum.

Case report

In January 1991 a 19-year-old nulligravid woman was seen in the Stanford University Hospital emergency department with a chief complaint of severe pelvic pain.

Medical history revealed that at age 16 years the patient was seen in a local emergency department with complaints of abdominopelvic pain and fever. Sonogram revealed bilateral 6 to 8 cm adnexal masses, confirmed at laparotomy. A right salpingo-oophorectomy was performed. Six months later the patient was readmitted with increasing abdominal pain and a 10 cm left adnexal mass. After 10 days of intravenous antibiotics symptoms and signs resolved. The patient was treated several more times for similar symptoms as an outpatient and required two admissions. At age 17 years she underwent a left salpingo-oophorectomy for the diagnosis of chronic tuboovarian abscess and was started on a regimen of hormone replacement therapy.

Initial evaluation at the Stanford University Hospital emergency department suggested recurrent pelvic inflammatory disease, in spite of her history of bilateral salpingectomy, with guarding of lower abdominal pain



Fig. 1. Exophytic mass protruding from left upper vagina and cervix. Colposcopic evaluation of this area showed no epithelial abnormalities.

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elicited by deep palpation. In addition, a nontender 4.0 × 5.0 cauliflower-like exophytic mass protruded from the left upper vagina (Fig. 1), covered by a smooth, pink mucosa that was not acetowhite or neovascular by colposcopy. Biopsy specimens revealed only a fibroepithelial polyp. Rectovaginal examination revealed a tender 4 cm solid left parametrial thickness



Fig. 2. A 3.7 × 3.8 cm bottle cap and tissue capsule with inflammatory exudate removed from left pelvic retroperitoneum.

confirmed by sonogram, suspicious for carcinoma or abscess. Abdominal-pelvic computed tomography suggested a 5 cm fluid-filled, thickly encapsulated abscess separate from the uterus with poorly defined soft tissue planes adjacent to the left piriformis muscle, right displacement of the rectosigmoid colon, and an air-fluid level consistent with either "fistula formation, prior biopsy, or abscess." Normal uterine anatomy was demonstrated. Preoperative differential diagnosis included persistent phlegmon, rectovaginal fistula, and soft tissue sarcoma.

Exploratory laparotomy revealed no intraabdominal process, but the left retroperitoneal pelvis was protruding slightly. When the retroperitoneum was opened, the left obturator nerve was immediately observed to be distended anteriorly over a dense fibrofatty mass. Further dissection revealed a fibrous capsule containing inflammatory exudate and a 3.7 × 3.8 cm plastic, forest green spray bottle cap deep in the left paravaginal retroperitoneum (Fig. 2). The capsule was removed and a drain was placed.

Postoperatively the patient reported immediate resolution of the left-sided pain and readily admitted that she had inserted a bottle cap into the vagina at age 12 years. She was unable to remove it. A foul vaginal discharge developed, for which her mother took her to multiple physicians. Each reported that they could find no foreign body in the vagina, disbelieving her insistence that the item had never come out of the vagina. At that time neither radiologic studies nor examination while she was under anesthesia was performed. She was

taunted by her classmates for her odor, socially isolated, and ultimately dropped out of school. By age 15 years the discharge ameliorated somewhat, but she reports that was when the left-sided pain began.

The patient informed our surgical team that, because her previous physicians had always failed to find the cap in the vagina or the abdomen, she began to doubt herself that the bottle cap remained in her body and never volunteered the information to our gynecologic team.

Comment

Episodes of childhood vulvovaginitis are frequently caused by a vaginal foreign body. Fear and embarrassment can delay some young girls from seeking treatment, but the young girl in this case had consistently reported insertion and no retrieval. Further investigation was indicated at least at her second physician visit for persistent vaginitis. Although the bottle cap may have perforated and not been findable in the vagina, ultrasonography would have revealed a 4.0 cm pelvic mass. Another option would have been an examination under anesthesia, when the 4.0 cm parametrial thickening could easily have been felt. A further clue to the presence of a perforated foreign body was the polyposis around the perforation site. Large cervical polyps have previously been reported in association with a foreign body by Aridogan et al.,² who described a 14 × 14 cm endocervical polyp encapsulating a fountain pen cover. Cervical polyp formation is theorized to result from either direct stimulation of the stroma of the

cervix or from secondary infection from the foreign body.

In conclusion, whenever recurrent vulvovaginitis develops in young girls, a foreign body in the vagina should be suspected. Physicians should search more thoroughly for a foreign body when a young girl clearly insists that insertion was not followed by retrieval. Workup should include ultrasonography or examination under anesthesia, either of which would have revealed the mass and allowed appropriate surgical

retrieval with preservation of this young girl's fertility. This appears to be the first reported case of a retroperitoneal perforation by a vaginal foreign body.

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Tuboovarian abscess caused by *Edwardsiella tarda*

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Edwardsiella tarda infections are uncommon and have often been reported in association with pet reptiles. The majority of these infections occur as gastrointestinal disorders in immunocompromised hosts. We believe this to be the first reported American case of tuboovarian abscess caused by this organism in an otherwise healthy woman whose only known exposure was to raw seafood. This patient had fever and lower abdominal pain caused by a severe *Edwardsiella tarda* pelvic abscess that required surgical drainage and intravenous antibiotics for complete recovery. (*AM J OBSTET GYNECOL* 1995;173:964-5.)

Key words: *Edwardsiella* infection, tuboovarian abscess, unusual pelvic abscess

Edwardsiella infections are infrequent and usually arise from an environmental source. The majority of patients have a predisposing disorder, often hematologic or hepatic diseases. We recently encountered a case of tuboovarian abscess in an otherwise healthy woman with no predisposing illnesses or known environmental exposure other than the ingestion of raw fish.

Case report

A 42-year-old native Hawaiian woman, gravida 2, para 2, was admitted because of fever, lower abdominal pain, and flulike illness with diarrhea associated with vaginal discharge of 1 weeks' duration. Her last sexual contact was reported as 3.5 years before admission. Medical history was negative for any chronic illnesses. Surgical history was positive for two cesarean sections 20 years previously and for tubal ligation. Her only pet was a rabbit. She had eaten a commercially prepared raw fish preparation, "poki," before the flulike illness.

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Laboratory evaluation on admission showed a white blood cell count of 9200/mm³ with left shift and an erythrocyte sedimentation rate of 113 mm/hr. On physical examination the patient was alert and oriented with a temperature 100.9° F. The abdomen had positive bowel sounds but was tender in the right lower quadrant. The patient's pelvic examination by a surgical resident was reported as "negative" for cervical motion tenderness or adnexal masses. Pelvic ultrasonography showed a small amount of fluid in the cul-de-sac and a slightly enlarged "ovary" on the right measuring 5.7 × 3.8 × 3.4 cm.

The patient was initially seen by a general surgeon and thought to have acute appendicitis. After a normal appendectomy the surgeon noted a right-sided pelvic mass. Intraoperative gynecologic consultation was obtained. The mass proved to be a tuboovarian abscess complex involving the right tube, ovary, peritoneal wall, and bowel. Because the patient was not completely stable preoperatively and because she had not been counseled for laparotomy or gynecologic operation of any kind before the start of the procedure, a conservative approach was deemed prudent. The 10 mm operating laparoscope was placed through the McBurney incision already present and pneumoperitoneum was made without difficulty. Visualization was excellent and a second puncture, made in the midline suprapubically,