



IDIOPATHIC UTERINE PERFORATION – CASE REVIEW

Surgery

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ABSTRACT

Perforation of uterus is usually found to be associated with instrumentation or trauma to uterus. Spontaneous uterine perforation is a rarely entity and it is most commonly found to be associated with pyometra in older women. We report one case of a rare presentation of idiopathic spontaneous uterine perforation presenting as appendicular perforation peritonitis, in a young female patient.

KEYWORDS

Uterine perforation, Idiopathic, perforation peritonitis, pyometra

Introduction:

Uterine perforation during curettage in young women is a commonly noted complication and is seen in approximately 0.3% patients undergoing the procedure. It can also occur in older patients undergoing diagnostic curettage. Perforation with haemoperitoneum secondary to malignancy is also documented in literature. However spontaneous uterine perforation is rare and only few such case reports are noted in literature. They are found to be associated with pyometra in older patients. We report spontaneous uterine perforation with purulent peritonitis, in a 30-year-old female without any history of instrumentation or pyometra.

Case report:

A 30-year-old married female presented to casualty with 4 days history of pain in abdomen. Pain was initially in right iliac fossa, gradually spreading towards whole lower abdomen. Pain was associated with low-grade fever, nausea and vomiting for same duration. She had her last menstruation 4 days before starting of pain. She had history of two previous live child delivery, the last one being 3 years ago. There was no history of intra-uterine contraceptive device placement or any other per vaginal intervention in recent past. On examination patient had blood pressure of 100/70 and pulse rate around 100 per minute. The abdomen was soft with tenderness in right iliac fossa on deep palpation. No sign of peritonitis was present.

Investigation and management:

Blood reports were essentially normal except raised leucocytosis of 10,000 and raised serum bilirubin of 3 with normal liver enzymes. There was no free gas or any specific finding on abdominal x-ray (Figure 1) and ultrasonography was normal. Urinary Pregnancy kit test was negative. In view of not meeting any criteria of operable acute surgical abdomen, she was managed conservatively with IV fluid, antibiotics and analgesics for 1 day. CECT was planned the next day in view of no improvement and increase in pain abdomen with pain being generalized in nature. CECT revealed free fluid in abdomen (? Ascites) with collection in right iliac fossa area and pelvis with thickened bowel loops in right iliac fossa (? secondary to appendicular pathology) (Figure 2). In view of no improvement on conservative treatment, a decision of exploratory laparotomy was planned with a provisional diagnosis of appendicular perforation and abscess.

Intraoperatively, gross purulent collection was noted in right iliac fossa area and pelvis with pus flakes present all over the abdominal cavity. Appendix was found to be normal. No hollow organ (bowel) perforation was noted. Abdominal lavage with warm saline was done.

After careful examination, one 0.5X0.5 cm perforation in posterior surface of lower part of uterine body was noted (Figure 3). Intraoperative gynecological opinion was sought. Uterus was palpated. Cervix was found to be closed. Dilatation and curettage was performed in view of suspicion of missed/ incomplete abortion and specimen was sent for histopathological examination.

Outcome and follow up

Postoperative outcome of the patient was uneventful. Patient was discharged on postoperative day 6. She was readmitted with pain abdomen and distension, 5 days after discharge. On evaluation, she was found to be having raised TLC of 18000. USG abdomen for collection was negative. She was managed conservatively with antibiotics. She responded well to treatment and was discharged 3 days after readmission. Histopathology of the uterine curettage was consistent with normal Endometrium. She is under regular follow-up for last 2 months at OPD and is asymptomatic.



Figure 1: Abdominal radiograph showing no free gas under diaphragm or air fluid level



Figure 2: CT scan showing collection in right iliac fossa and pelvis

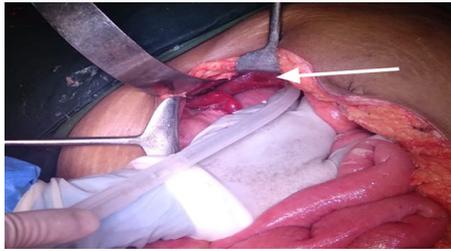


Figure 3: Arrow pointing 0.5X0.5 cm perforation in posterior surface of lower part of body of uterus.

Discussion:

Perforation of uterus usually occurs secondary to instrumentation (Traumatic). Non-traumatic uterine perforation is a rare entity. There have been few case reports of the same. The usual pathologies leading to uterine perforations are pyometra in elderly females, cancer of genital tract and Asherman syndrome. Most of the reported literature (1-5) depict acute abdomen as most common presentation of spontaneous uterine perforation requiring exploratory laparotomy.

Francisco et al reported three cases of spontaneous uterine perforation(6). All these patients were elderly females (mean age 76.2 years) and had pyometra as a cause of uterine perforation. Cause of pyometra was not known in these patients. They presented with signs of peritonitis. None of these patients were diagnosed preoperatively. Diagnosis was made only during exploratory laparotomy.

Uterine perforation in pyometra secondary to malignant aetiology like carcinoma cervix appears to have poor prognosis as shown by Chan et al(7). They reported three cases of spontaneous uterine perforation secondary to pyometra. Two patients had carcinoma cervix as a cause of pyometra while one patient had non-malignant aetiology. One patient died in immediate post-operative period while another patient died within 5 months of surgery. They concluded that perforation of uterus secondary to pyometra might be considered in one of differential diagnosis of acute abdomen in elderly females with carcinoma cervix.

Kitai et al(1) reported a similar case of spontaneous uterine perforation secondary to pyometra and reviewed the existing literature. They reviewed 42 cases of spontaneous perforation with pyometra. The median age of presentation was 75 years (range, 40–93). Most common symptom was abdominal pain (41 cases, 97.6%) followed by fever (23 cases, 54.8%), and vomiting (13 cases, 31.0%). Five cases (11.9%) presented with septic shock. Eleven patients (26.2%) had malignancy as a cause of pyometra (n=8 cervical carcinoma, n=3 carcinoma sigmoid colon). A preoperative diagnosis of uterine perforation was made only in 13 cases.

Sahoo et al(2) presented a case of perforated pyometra in a 50 year old postmenopausal lady presenting as acute abdomen. Histopathological examination revealed cause of pyometra as chronic suppurative endometritis with myometritis of the uterus.

Kurashina et al (8) reported a case of spontaneous uterine perforation due to clostridial gas gangrene associated with endometrial carcinoma in 46-year-old woman. Perforation of the necrotic uterine wall was observed during surgery.

Most of these case reports have pyometra as a cause of uterine perforation. Our case was young female with uterine perforation without any evidence of pyometra as confirmed by gynecology team intra-operatively. Moreover, pyometra is a disease of females of elderly age group. Our patient was a 30-year-old young lady. Post-operative report of curettage also revealed no obvious uterine pathology.

Idiopathic non-traumatic spontaneous uterine perforation is extremely rare entity. To our best knowledge this is first case report of spontaneous uterine perforation without any uterine pathology or uterine instrumentation.

Conclusion

Uterine perforation secondary to pyometra is known entity. In elderly

females with carcinoma of genital tract presenting as acute abdomen, a differential diagnosis of uterine perforation may also be kept in mind. Accurate preoperative diagnosis is seldom made. Most of these patients require an exploratory laparotomy. However, idiopathic non-traumatic spontaneous uterine perforation as seen in our case is extremely rare and has not been reported in literature.

Sources of Support- None

Conflicts of interest- None

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