

Spontaneous Rupture of Pyometra – A Rare Cause of Acute Abdomen in Elderly Female

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Citation

S Dalal, P Rohilla, P Garg. *Spontaneous Rupture of Pyometra – A Rare Cause of Acute Abdomen in Elderly Female*. The Internet Journal of Gynecology and Obstetrics. 2008 Volume 12 Number 1.

Abstract

Spontaneous perforation of pyometra is a rare pathologic condition that presents as diffuse peritonitis. We report a rare case of diffuse peritonitis caused by spontaneously perforated pyometra. A 68-year old woman was admitted to our hospital with signs of generalised peritonitis. At laparotomy, about one litre of pus was found in the peritoneal cavity with two perforations present in the dome of uterus. There were no abnormal findings in the alimentary tract. A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. Pathological examination of the specimen revealed uterine perforation with changes of chronic cervicitis, but there was no evidence of malignancy. Although spontaneously perforated pyometra is rare, it should still be kept in the differential diagnosis when an elderly woman present with an acute abdomen.

INTRODUCTION

Pyometra is defined as a pooling of pus in the uterine cavity and occurs when the natural drainage of the uterine cavity is compromised. It develops gradually and progresses to enlarge the uterine size. Pyometra has an incidence of 0.1%-0.5%.¹ A spontaneous perforation of pyometra and subsequent diffuse peritonitis is very rare.² Only few cases have been reported in English literature. We report a case of spontaneous perforation of pyometra that presented to us as an acute abdomen and was successfully managed by surgery.

CASE REPORT

A 68-year old, multiparous, post-menopausal woman was admitted to surgical emergency of our institute with features of acute abdomen. Her abdominal examination revealed marked guarding and tenderness. Plain abdominal radiograph revealed multiple air fluid levels with no free air under the diaphragm. Ultrasonography of the abdomen revealed free fluid in the abdominal cavity. With these findings, a clinical diagnosis of perforation peritonitis was made and exploratory laparotomy was planned. Broad spectrum antibiotics were started. Laparotomy revealed a collection of one litre purulent fluid in the abdominal cavity, with no perforation in the gastrointestinal tract or gall bladder.

The uterus was gangrenous in the fundal area and was found to have two perforations, one approximately of 2 cm

diameter in the posterior wall and second of one cm diameter in the dome (Fig. 1).

Figure 1

Fig.1 : Hysterectomy specimen showing gangrenous uterus with perforation in the dome.



A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. The cervix and vagina did not reveal any abnormality. Histopathological examination of the specimen revealed features of gangrene and perforation with no evidence of malignancy. The patient was discharged on 10th day, in a healthy condition with no major postoperative complications.

DISCUSSION

Pyometra is defined as accumulation of pus in the uterine cavity resulting from interference with its natural drainage. Its reported incidence is 0.1-0.5% in gynecologic patients; however incidence rises in elderly patients.¹ The most common cause of pyometra is malignant diseases of genital

tract and the consequences of their treatment like radiotherapy. Other causes are benign tumours like leiomyoma, endometrial polyps, senile cervicitis, cervical occlusion after surgery, puerperal infections and congenital cervical anomalies.² Spontaneous rupture of the uterus is an extremely rare complication of pyometra.³ Only few cases of spontaneous perforation of pyometra have been reported in English literature since 1980.³⁻⁵

Spontaneous perforation of the uterus is thought to occur at a site of degenerative or necrotic change after pyometra develops as a result of blockage of natural drainage. Cervical occlusion may be caused malignant or benign tumours, radiation cervicitis, atrophic cervicitis, congenital anomalies etc.³ In our case it was probably because of postmenopausal senile cervicitis as was evident from the histopathology report also. Pneumoperitoneum associated with it was recognised in only 56% of the cases.⁶ In most cases, spontaneously perforated pyometra has been diagnosed intraoperatively, where the suspected diagnosis was gastrointestinal perforation.³

CT abdomen and magnetic resonance imaging are important diagnostic tools for preoperative diagnosis of perforated pyometra, besides good quality ultrasonography.⁷ Unfortunately, these investigations other than USG could not be done in our case due to her morbid condition. Once the diagnosis is being suspected by any of the investigation, the treatment of ruptured pyometra is, immediate laparotomy, peritoneal lavage with simple hysterectomy.³ The cases of spontaneously perforated pyometra not associated with malignancy have better prognosis as compared to those cases that are associated with malignancy.

⁸ Patient in consideration was a 68 year, elderly female, who presented with acute abdomen and diagnosis of perforated pyometra was made at laparotomy. In this case pyometra probably developed due to narrowing of cervical canal because of senile cervicitis as shown in the histopathology report of the specimen. A supravaginal hysterectomy with bilateral salpingo-oophorectomy and drainage were performed.

The case is being reported to stress the fact that ruptured pyometra should be kept in the differential diagnosis in elderly women presenting with acute abdomen as an unusual but serious condition.

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