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Case Report

Postmenopausal spontaneous rupture of pyometra

Aruna Verma, Raghavi Maheshwari*

Department of Obstetrics and Gynecology, L. L. R. M. Medical College, Meerut, Uttar Pradesh, India

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***Correspondence:**
Dr. Raghavi Maheshwari,
E-mail: raghavi_0106@yahoo.co.in

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ABSTRACT

Spontaneous perforation of pyometra resulting in generalized diffuse peritonitis is extremely uncommon, ranging from 0.01% to 0.5%. Herein, we report the case of a 55 year old postmenopausal woman, presented with acute abdominal pain, distended abdomen, and inability to pass flatus and feces, and purulent vaginal discharge. In view of generalized peritonitis, laparotomy was performed on which 3000 cc pus was suctioned out and necrotic tissue was found on the surface of liver and intestines. The uterus was found to have a 2×2 cm sized perforation at fundo-posterior surface from which purulent material was seen exuding. Thus, a diagnosis of perforated uterus due to pyometra was made. A total abdominal hysterectomy with bilateral salpingo-oophorectomy with thorough peritoneal lavage was done. Histopathological examination revealed perforated uterus with pyometra, but there was no evidence of malignancy, and the cervical canal was patent. The patient had burst abdomen on 6th postoperative day and subsequent resuturing was done. She was discharged on 17th postoperative day in satisfactory condition. Thus, rarely, perforation of uterus due to pyometra can cause peritonitis in postmenopausal females with signs of acute abdomen.

Keywords: Pyometra, Uterine perforation, Postmenopausal

INTRODUCTION

Pyometra is the accumulation of pus in the uterine cavity, usually formed in elderly women with cervical stenosis, atrophic endometritis, and carcinoma of endometrium among other causes.[1] The endometrial secretions due to chronic infection are not drained and accumulate in the endometrial cavity. The sequelae of untreated pyometra, along with peritonitis and sepsis, include kidney failure, anemia, uterine rupture, even death.

CASE REPORT

A 55-year old P4L4 postmenopausal female presented with chief complaints of pain in lower abdomen, inability to pass flatus and feces, foul smelling discharge per vaginum for 1 week and distension of abdomen for 4 days. On admission the patient's vitals were pulse rate (PR)-110/min, blood pressure (BP)-130/80 mmHg, and temperature- 99.4 F. On per abdomen examination, abdominal distension was seen, guarding and muscle rigidity over whole abdomen was present, and bowel sounds were sluggish. Per speculum examination revealed foul smelling discharge coming through os, hypertrophied cervix, and 3 degree cervical descent with normal vagina. On bimanual palpation uterus was retroverted and size could not be assessed due to tenderness. Laboratory studies showed white blood cells (WBC) count 9100/mm^3, 88% neutrophil and hemoglobin of 12 g/dl.

Ultrasonography (USG) pelvis was s/o 51 cc pyometra/ hematometra. Contrast enhanced computed tomography (CECT) whole abdomen revealed prominent bowel loops, mild pelvic collection and moderate peritoneal collection likely pyometra with uterine perforation. Exploratory laparotomy was performed and per operatively 3L pus was suctioned out from abdominal cavity. Necrotic tissue was found on the surface of liver and intestines. The uterus was

found to have a 2×2 cm sized perforation at fundo-posterior surface with necrotic margins from which purulent material was seen exuding. The uterus was soft and slightly enlarged.

A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed and thorough peritoneal lavage was done with removal of necrotic tissue; intraperitoneal drain placed in situ. Histopathological examination revealed perforated uterus with pyometra, but there was no evidence of malignancy, and the cervical canal was patent.

The patient had burst abdomen on 6th postoperative day and subsequent resuturing was done. She was discharged on 17th postoperative day in satisfactory condition.

Figure 1: Specimen of uterus showing 2×2 cm sized perforation at fundo-posterior surface of uterus (blue arrow).

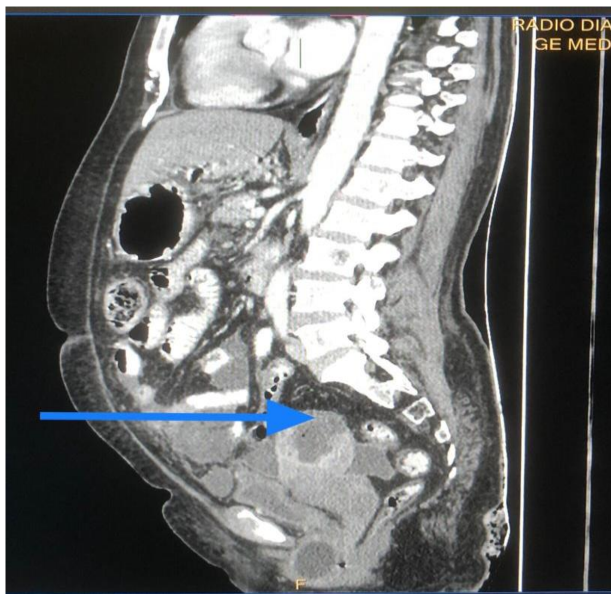

Figure 2: A contrast enhanced computed tomography of the sagittal section of the abdomen showing intrauterine fluid collection. The Blue arrow illustrates 2×2 cm perforation at fundo-posterior surface of uterus.

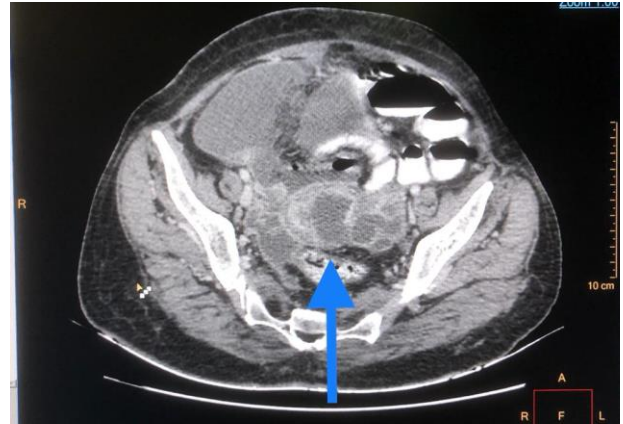

Figure 3: A contrast enhanced computed tomography of the horizontal section of the abdomen showing intrauterine fluid collection. The Blue arrow illustrates 2×2 cm perforation at fundo-posterior surface of uterus.

DISCUSSION

Pyometra is the accumulation of pus in the uterine cavity, usually formed in elderly women with cervical stenosis, atrophic endometritis, carcinoma of endometrium, radiation, and forgotten intrauterine devices among other causes. More than 50% of all patients with unruptured pyometra are asymptomatic. Symptoms usually include postmenopausal bleeding, vaginal discharge, and cramping pain.

This patient had complaint of vaginal discharge and pain abdomen. Spontaneous perforation of pyometra resulting in generalized peritonitis is extremely uncommon, ranging from 0.01% to 0.5%. Uterine perforation is usually seen in the site of uterine fundus (77%), otherwise it may occur anteriorly (4%).[2]

Once ruptured, the symptoms become severe and acute abdomen often develops; it is therefore important to make an early diagnosis to avoid complications. However, most diagnoses are made intraoperatively, as it is difficult to diagnose with the available modalities such as ultrasound, and the symptoms mimic other surgical causes such as perforation of bowel and liver perforation.[3]

Prognosis is better when perforation is not associated with malignancy. Mortality from spontaneously perforated pyometra exceeds 40%.[4]

CONCLUSION

Perforation of uterus due to pyometra causing acute abdomen and peritonitis in postmenopausal females is rare and carries a high risk of mortality and morbidity. Hence early diagnosis and management is important to avoid

complications. Hysterectomy with bilateral salpingo-oophorectomy with copious peritoneal lavage may be the procedure of choice.

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REFERENCES

1. Nielsen KE, Medeck SA, Brillhart DB, Mayclin KJ. Pyometra, an Unusual Case of Acute Abdomen. Clin Pract Cases Emerg Med. 2018;2(3):241-3.
2. Huang Y, Qifang T. Postmenopausal spontaneous rupture of pyometra. Medicine. 2018;97(52):e13659.
3. Malvadkar SM, Malvadkar MS, Domkundwar SV. Spontaneous rupture of pyometra causing peritonitis in elderly female diagnosed on dynamic transvaginal ultrasound. Case Rep Radiol. 2016;1738521.
4. Yin WB, Wei YH, Liu GW, Zhao XT, Zhang MS, Hu JL, Zhang NY, Lu Y. Spontaneous perforation of pyometra presenting as acute abdomen: a rare condition with considerable mortality. Am J Emerg Med. 2016;34(4):761.

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