

## A rare case of spontaneous uterine perforation in post-menopausal woman

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### Abstract

A 55 year old postmenopausal woman was brought to casualty department of C. U. Shah Medical College and Hospital with history of fall down with lower abdominal pain and vomiting. Patient having history of lower abdominal pain, non foul smelling whitish discharge, low grade on and off fever since 1 year associated with gradual weight loss since 2 years. Per abdominal examination reveals tender, distended with muscle rigidity. Exploratory laparotomy was performed under the diagnosis of perforation of GI tract with x-ray showing free gas under diaphragm. On exploration, the uterus was found to have fundal perforation of size 2x2 cm in dimension. With purulent material extruding from uterine cavity and abdominal cavity filled with purulent discharge around 1.5 litre. A Total abdominal hysterectomy with bilateral Salpingoophorectomy was performed uneventful and peritoneal cavity wash given with normal saline multiple times. Patient recovered completely without any complications and was discharged. Perforation due to pyometra can cause peritonitis in post menopausal females with signs of acute abdomen as an unusual but serious condition.

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### Introduction

Pyometra is collection of pus in uterine cavity. The reported incidence is 0.1-0.5% in Gynecological patients and much higher in elderly women.<sup>(1)</sup> Causes of pyometra include carcinoma in lower part of the body of uterus, Endometrial Carcinoma, Senile Endometritis, Infected hematometra following amputation, conization or deep cauterization of cervix and tubercular endometritis. Spontaneous perforation of uterus is an extremely rare complication of pyometra.

### Case Report

A 55 year old postmenopausal woman was brought to casualty department of C. U. Shah Medical College and Hospital with history of fall down with lower abdominal pain and vomiting. She was treated palliatively at Community Health Center but due to worsening of condition was referred to C. U. Shah Medical College and Hospital (CUSMCH). History of non-foul smelling whitish discharge per vagina and lower abdominal pain, intermittent low grade fever was noted since 1 year with gradual weight loss since 2 years. On physical examination Blood pressure was 100/64 mmHg, her pulse rate was 116/min and she was afebrile. On examination, abdomen was found to be soft, tender over lower abdomen. Bladder was palpable per abdomen. Rebound tenderness was absent. On auscultation, Bowel sounds were faintly audible. Laboratory investigations revealed total WBC count of 7,200 /mm<sup>3</sup> and Hemoglobin level of 11.6 g/dl and s. creatinine level 3 mg/dl. Chest X-Ray PA view revealed free gas under both diaphragm.

Emergency exploratory laparotomy was performed under suspicion of GI Perforation. Surprisingly, no

perforation was found in GI tract. On further exploration a 2x2 cm perforation was found over fundal region of uterus. Uterus was grossly enlarged, gangrenous and friable. Fallopian tubes were also gangrenous. Peritoneal cavity was red inflamed with changes of peritonitis. A total abdominal hysterectomy with bilateral salpingoophorectomy was performed. Histopathological examination revealed normal cell morphology with no signs of malignancy.

She was observed in ICU till 6<sup>th</sup> post op day. She was on support of Noradrenaline till day 3 postop. On 6<sup>th</sup> postop day she was transferred to ward. She was given injectable Piperacillin+Tazobactam combination along with metronidazole and levofloxacin till day 7 and then shifted to Oral Amoxicillin+Clavulanic acid combination, and Ofloxacin+Ornidazole combination. Patient recovered without any complications and was discharged on postop day 10. On discharge her Hemoglobin level was 13.0 g/dl, Total WBC count was 14,400 and Serum Creatinine was 0.8 mg/dl.



### Discussion

Pyometra is caused due to cervical canal stenosis, which may result from cervical carcinoma, or after

amputation of cervix, or postmenopausal involution of uterus.<sup>(2)</sup> Presentation of Pyometra may be concealed and may present with symptoms of Gastrointestinal pathology.

Various benign and malignant lesions can cause pyometra. Pyometra is a rare event in general population but can occur commonly in elderly women. Endometrial discharges collected in the uterine cavity can get infected with opportunistic bacteria reaching the body of the uterus from the vagina. Rupture of the pyometra into the abdomen is as complications of pyometra. Malignant disease is present in 35% of cases,<sup>(3)</sup> or intrauterine contraceptive device.<sup>(4)</sup>

In study by Bangal, et al. patient with pyometra presented to the emergency department with an acute abdomen only.<sup>(5)</sup>

In differential of acute abdomen, the pyometra perforation was suspected only in 15.8% patients.<sup>(3)</sup> The cause of absence of cervical occlusion causing pyometra and perforation<sup>(9)</sup> as well as histological findings of no cancer was also noted by some researchers.

Pus culture of isolated from patients with pyometra revealed *S. agalactiae* infections<sup>(7)</sup> *Streptococcus* spp.,<sup>(8)</sup> *E. Coli*<sup>(5)</sup> and tubercular cause.

Histopathological examination did not have any evidence of malignancy. But a detailed pelvic examination is needed to be performed to rule out associated malignancy in pyometra patients. The diagnosis of pyometra causing perforated uterus is difficult because it is usually asymptomatic and only found incidentally during laparotomy.

## Conclusion

Perforation of uterus due to pyometra can cause the peritonitis in postmenopausal females with signs of acute abdomen as an unusual but serious condition. Early diagnosis of pyometra can avoid unforeseen complication in the elderly females without malignancy.

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