

# An Unusual Cause of Abdominal Pain in a Post-Menopausal Woman with Advanced Cancer

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## Introduction

Pyometra, the accumulation of purulent material in the uterine cavity, is very rare. It has been associated with gynecological malignancy or benign gynecologic tumors, radiation cervicitis, congenital anomalies, and intrauterine devices. The symptoms are nonspecific and easily misdiagnosed as other causes of acute abdomen. We present a post-menopausal woman with advanced pelvic cancer who presented with vague symptoms, in whom clinical and radiological testing led to the diagnosis of pyometra.

## Case

A 67-year-old post-menopausal woman, was admitted after a 4-day history of lower colicky abdominal pain, low grade fevers, and decreased oral intake. She had a history of hypertension and type 2 diabetes mellitus.

She was diagnosed with a histiocytic sarcoma of pelvic origin with local invasion to the bladder and cervix two months prior. She received one cycle of chemotherapy with Clofarabine, and radiotherapy with partial tumor regression the first month. After her diagnosis she developed acute pyelonephritis secondary to an obstructive uropathy from local invasion, requiring bilateral percutaneous nephrostomy tubes. Urine culture was negative and she completed a seven days course of trimethoprim/sulfamethoxazole with clinical improvement.

## Social history

She denied tobacco, alcohol and illicit drug use. She acknowledged having two sexual partners in her lifetime.

## Physical exam

Afebrile. BP 99/60 mmHg, HR 83/min, RR 16/min, SO<sub>2</sub>: 99%. Abdominal palpation: Enlarged suprapubic mass. Percutaneous nephrostomy tubes were in place without surrounding erythema. No costovertebral angle tenderness. Genitalia: Foul smelling vaginal discharge. Cervical os was non visible. Rectal exam: No masses, hemorrhoids, or blood. She also had bilateral lower extremity pitting edema up to her knees. The remainder of the physical examen was unremarkable.

## Laboratories

WBC was 26.3 K/ $\mu$ L, Neutrophils: 89%, Hgb: 8.8 g/dL. Creatinine was 1.7mg/dL. HIV and hepatitis panel were negative.

Urinalysis obtained from the nephrostomy tubes showed RBC >30, WBC>50, moderate bacteria and positive leukocyte esterase but no nitrates.

Abdominal radiograph showed moderate stool burden in the rectum. Computed tomography (CT) findings are shown in Fig 1 and 2

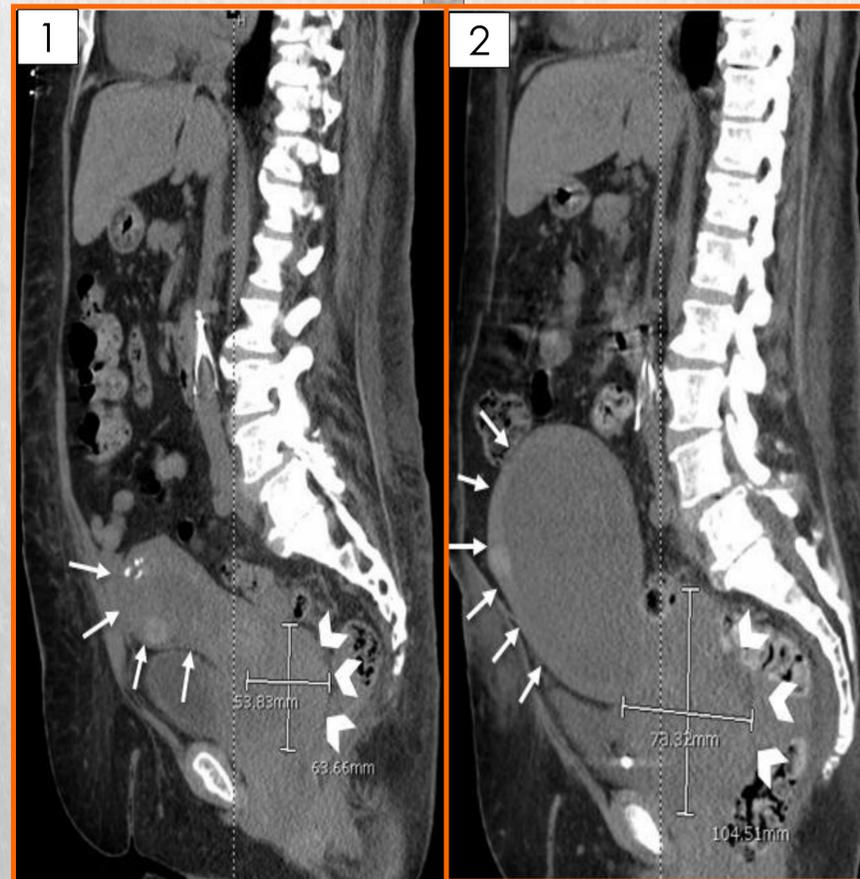


Fig 1 and 2. A computed tomography (CT) of the abdomen and pelvis on presentation, demonstrated a large cervical mass occluding the cervical os causing a massively dilated uterus (arrows in Fig 2), which had tripled its size compared to previous CT scan done one month prior (Fig 1).

## Clinical course

**The clinical manifestation and images were consistent with the diagnosis of pyometra.** She started receiving IV fluids and broad spectrum antibiotics (cefepime, vancomycin and metronidazole). Cervical catheterization was attempted, but she bled during the procedure; thus it was stopped.

**A CT guided percutaneous uterine drain was placed with successful drainage of frank pus.**

## Culture from this fluid grew *Prevotella loescheii*.

Blood and urine cultures remained negative.

She was discharged with the percutaneous drainage on oral antibiotics (sulfamethoxazole/trimethoprim and metronidazole).

Clinical evolution was favorable. In the subsequent months she underwent chemotherapy with clofarabine and radiotherapy.

## Discussion

**Pyometra** mostly occurs in postmenopausal women. It represents accumulation of pus in the uterine cavity as a result of interference with the natural drainage of the uterus. Common symptoms are abdominal pain, fever, vaginal discharge and enlarged uterus. The diagnosis can be made clinically by drainage of pus from the uterine cavity and from the image of intrauterine fluid accumulation by ultrasound or CT scan. The most frequent bacterial agents involved in pyometra are *Escherichia coli* and *Bacteroides fragilis*, usually as mixed infections. Others suggest that the endometrial cavity is not sterile and the most commonly detected species are saprophytic organisms: *Lactobacillus iners* (45%), *Prevotella spp* (33%), and *Lactobacillus crispatus* (33%). **Drainage is the first choice for treatment** but, antibiotics effective against aerobic and anaerobic bacteria are also required. Delayed diagnosis may lead to increased morbidity and mortality. Perforated pyometra could be one of the catastrophic complications.

**In this case a CT scan, along with the clinical presentation, led us to the diagnosis of pyometra. The patient was not a surgical candidate and long-term percutaneous uterine drainage and broad spectrum antibiotics were considered an excellent option treatment for this complex case.**

## REFERENCES

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