CASE REPORT

Spontaneous perforation by pyometra – an acute emergency

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Accumulation of pus in the uterine cavity is termed pyometra and has an incidence of 0.1 - 0.5%.[1] We report a case of spontaneous pyometra rupture with subsequent peritonitis.

Case report

A 55-year-old postmenopausal woman, para 5, gravida 5, presented to the emergency department at UCMS & GTB Hospital, New Delhi, India, a tertiary care centre, with acute severe abdominal pain, from which she had been suffering for 6 hours. She had no history of intra-uterine contraceptive device (IUCD) insertion, dilatation and curettage, postmenopausal bleeding or discharge, or significant medical or surgical illnesses.

On examination she was pale and dehydrated, with a pulse rate of 114/min, a blood pressure of 90/60 mmHg and a respiratory rate of 20/min. The findings on chest examination were normal, as was the cardiovascular system. Abdominal examination revealed distension with diffuse tenderness, guarding and rigidity. Bowel sounds were absent.

On examination with a speculum the ectocervix appeared normal and examination per vaginum revealed a soft uterus of normal size with tenderness in the bilateral fornices. A haemogram revealed leucocytosis, and an erect X-ray of the abdomen showed gas under the diaphragm. A provisional diagnosis of intestinal perforation was made and an urgent laparotomy was performed.

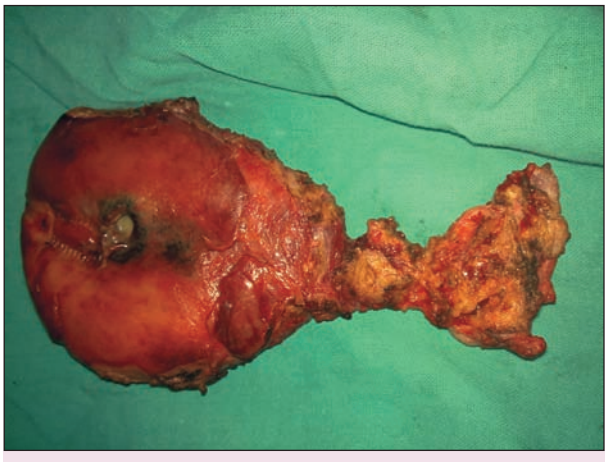

Fig. 1. Uterine perforation.

There was 500 ml of foul-smelling pus in the abdominal cavity, but the bowel was normal. There was a 1.5×1cm tear on the anterior wall of the uterus, with black discoloration and shaggy margins (Fig. 1), through which pus was draining. Total hysterectomy with bilateral salpingo-ophrectomy was performed and thorough peritoneal lavage was done. The patient was observed in the intensive care unit and received piperacillin, tazobactam and metronidazole for 2 weeks. Histopathological examination revealed an atrophic endometrium with necrotic tissue and chronic cervicitis. The pus culture was sterile. The patient was discharged in a stable condition on postoperative day 21.

Discussion

Pyometra is an uncommon condition that occurs mainly in postmenopausal women. Although atrophic endometrium is a common cause of pyometra, perforation is usually seen in the presence of serious causes such as cervical or endometrial carcinoma, or a forgotten IUCD.[2-4] Spontaneous perforation with diffuse peritonitis is very rare, and the incidence is 0.01 - 0.05%.[5]

The classic triad of symptoms in patients with pyometra consists of purulent vaginal discharge, postmenopausal bleeding and lower abdominal pain.[3] In our case these symptoms were absent and the patient presented to the emergency department with an acute abdomen.

In an exhaustive literature review of spontaneous uterine rupture, Yildizhan *et al*. concluded that the most common pre-operative diagnoses of acute abdomen in postmenopausal females were generalised peritonitis (47.4%), pneumoperitoneum (47.4%) and perforation of the gastro-intestinal tract (36.8%) (often more than one symptom is present), while pyometra perforation was suspected only in 15.8%.[2] In the present case intestinal perforation was the first differential diagnosis. In 85.7%

of cases the site of perforation was the uterine fundus,[2] while in our case the perforation was in the anterior uterine wall.

The treatment of choice is total abdominal hysterectomy with bilateral salpingo-opherectomy,[4] as was done in our case. Malignant disease is present in 35% of cases,[2] but in our patient the histological findings showed no cancer to be present.

Conclusion

Rupture of pyometra should be kept in mind as a differential diagnosis in women with an acute abdomen, especially if they are postmenopausal. The treatment of choice is hysterectomy with bilateral salpingo-oopherectomy. Intensive care with strict management of respiration and circulation is essential. A histopathological diagnosis should always be established.

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The posterior compartment – whose domain is it?

(continued from page 3)

South African urologists are not trained in posterior compartment prolapse during their formal postgraduate training. They are mainly trained in industry-driven workshops aimed at the increased use of mesh kits. This is the main reason why urologists use mesh kits much more often as a first choice of procedure than gynaecologists (see Adam *et al.*[1]). They are not trained in non-mesh procedures as gynaecologists are.

In my opinion, there is currently no legitimate approval in South Africa for urologists to operate in the posterior compartment. Female urology is not a registered sub-discipline, and FPMRS does not officially exist in this country. The time has come for specialists in urogynaecology, female urology and colorectal surgery to get together and discuss this burning issue.

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