

A case of spontaneous perforation of pyometra post early medical termination of pregnancy

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Case Presentation

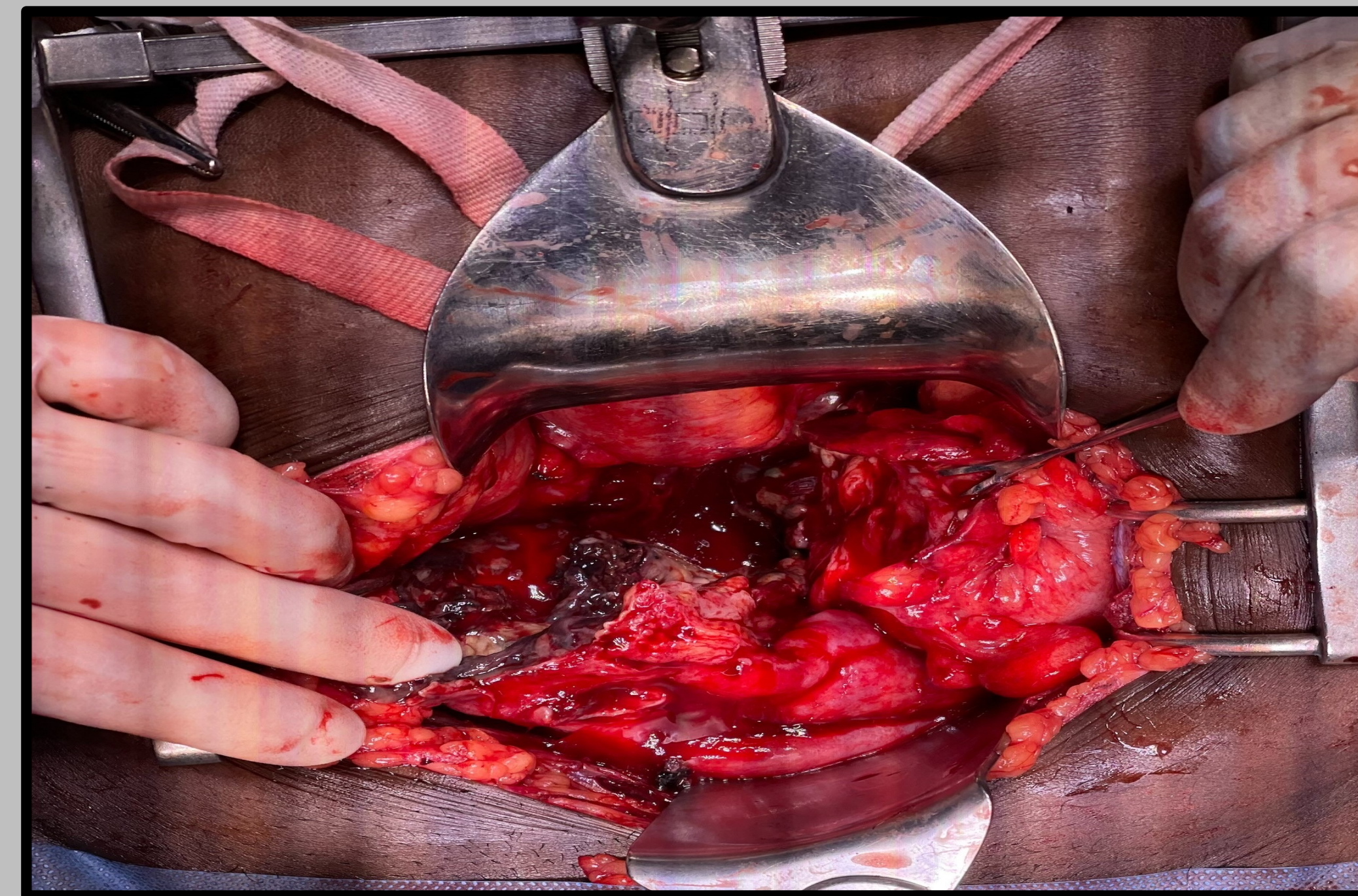
Ms Y is a 26-year-old who presented with an acute abdomen and signs of sepsis two months after she underwent an uncomplicated medical termination pregnancy at 7 weeks gestation. She had been admitted to another hospital in the preceding weeks, and extensively investigated for sepsis of unknown origin but following discharge re-presented a short while later. On arrival, she was treated with empirical intravenous Tazocin whilst awaiting investigation.

A transvaginal ultrasound indicated endometrial gas formation suggestive of chronic infection, with 49x33mm of retained products seen. As perforation could not be excluded, a CT scan was performed the following day. The CT revealed an 8cm pelvic collection, continuous with the uterus with features highly suggestive of uterine perforation or rupture. As the patient continued to deteriorate a decision was made to proceed to surgical management.

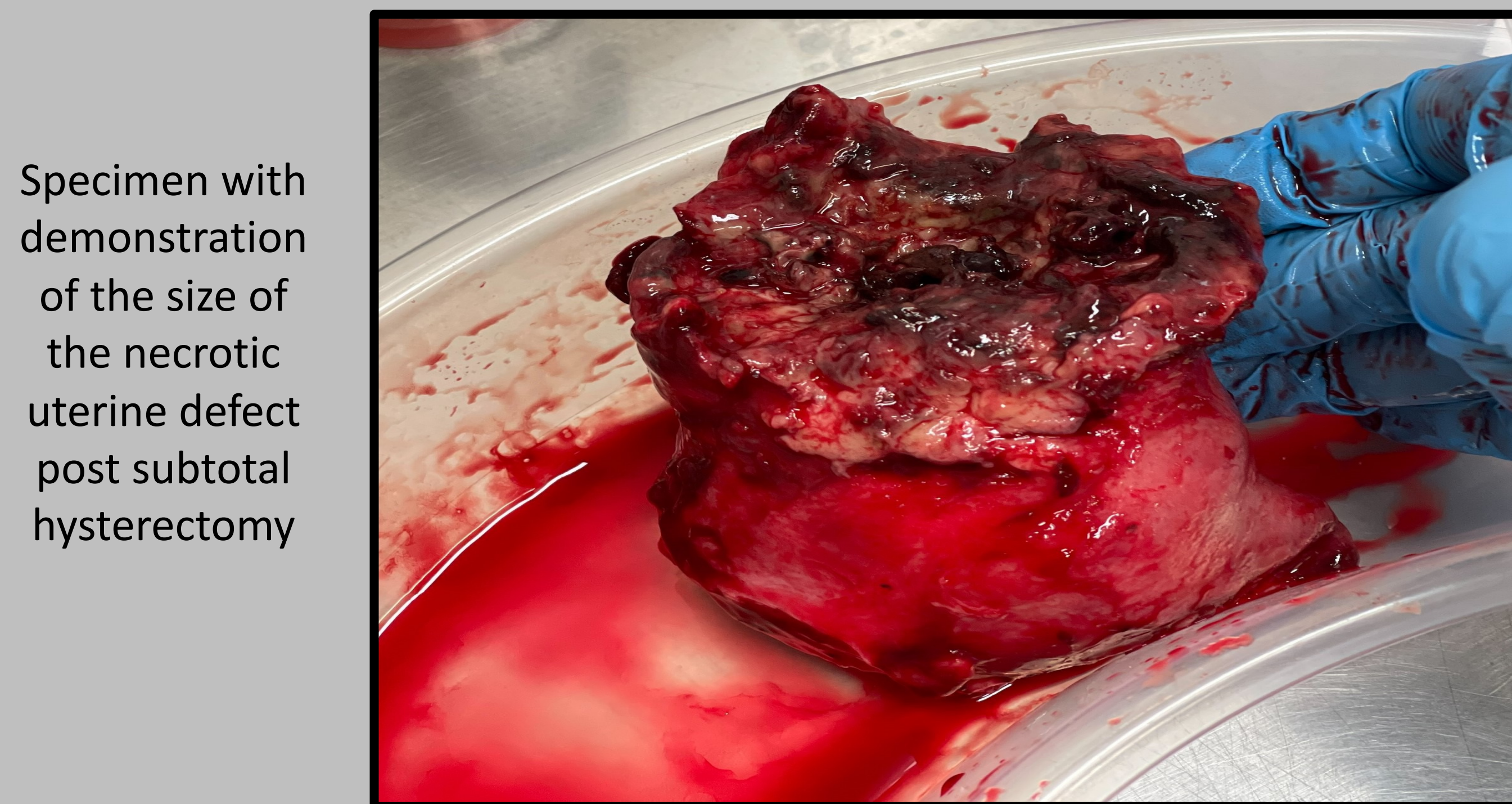
Uterine evacuation under ultrasound guidance was initially performed, but no retained products were identified. A diagnostic laparoscopy was then performed which showed significant amounts of pus in the abdomen and therefore an exploratory midline laparotomy ensued.

A large 5cm full thickness defect was identified on the posterior aspect of the uterus. The surrounding myometrium was necrotic and embedded within a posterior pelvic abscess involving several loops of matted small bowel. Bowel was gently teased away and the uterus freed from the abscess cavity. Repair was not feasible and therefore a subtotal hysterectomy with ovarian conservation was performed.

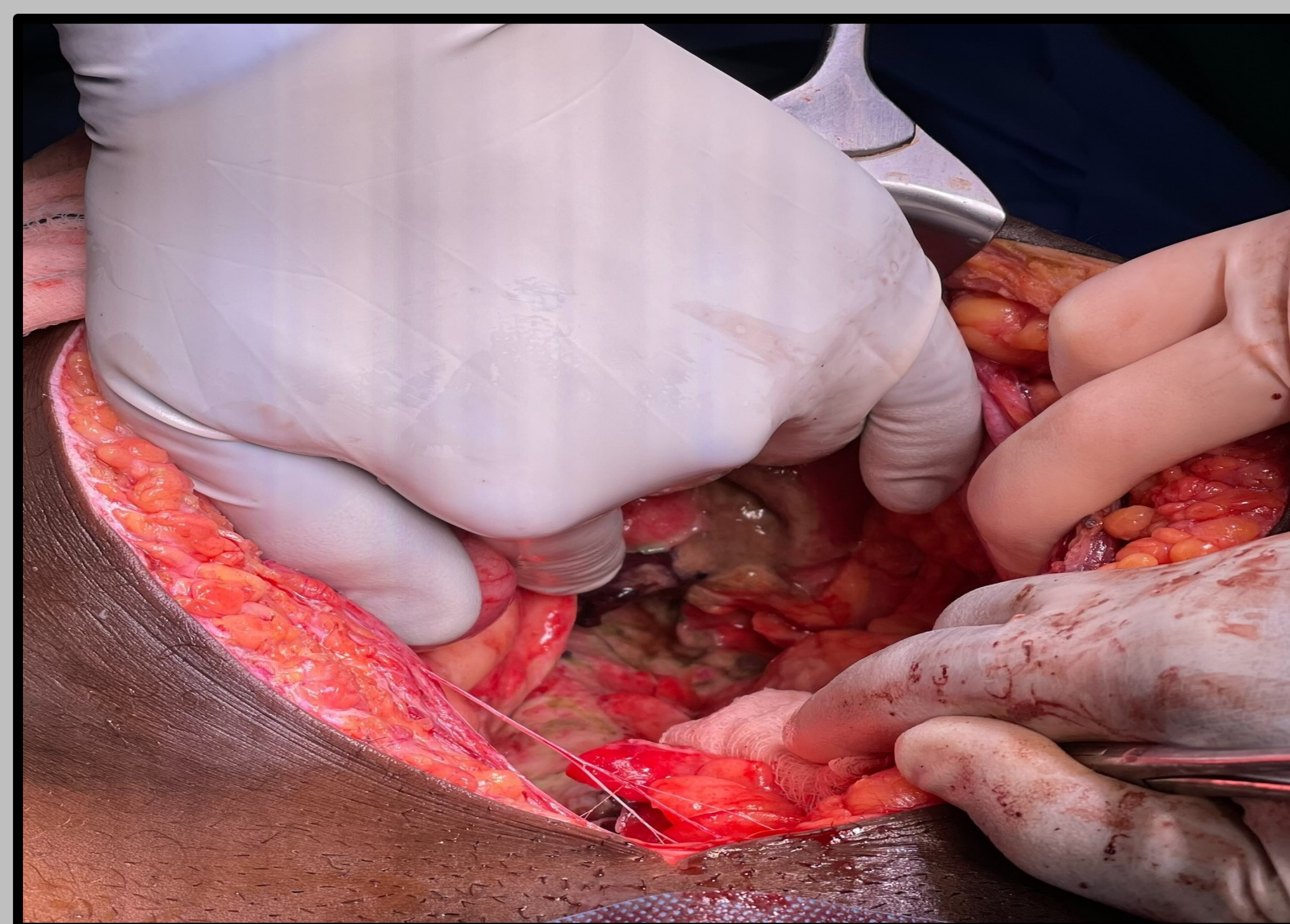
The histology showed acute and chronic inflammation with evidence of extensive thrombosis within the endometrium. Residual chorionic villi were present alongside areas of necrosis. No evidence of malignancy was identified. The fluid culture grew *Eggerthella lentha*, which was sensitive to Co-amoxiclav. The patient continued with IV antibiotics and was discharged home on the 7th postoperative day.



Uterus in situ with perforation exposed at laparotomy



Specimen with demonstration of the size of the necrotic uterine defect post subtotal hysterectomy



Picture demonstrating extension of the abscess along the posterior abdominal wall up to the diaphragm

Discussion and Recommendations

Pyometra is the accumulation of purulent material in the uterine cavity and occurs in 0.1-0.5% of gynaecological admissions (1). Spontaneous perforation of pyometra is a very rare complication that occurs in 0.01-0.05% of pyometra, and is thought to be associated with degenerative or necrotic changes at the site of the pyometra (2). This condition carries a significant morbidity/mortality risk and is usually seen in post-menopausal women, or in association with gynaecological malignancy or the complications of its treatment (2). It has not previously been described in association with retained products of conception within English literature.

The diagnosis is often missed pre-operatively and can present in a similar fashion to gastro-intestinal perforation and so is a rare but important differential that should be considered by general surgeons and gynaecologists alike (3). Early diagnosis and definitive management is likely to improve outcomes in this group of patients.

When a spontaneous perforation is found, hysterectomy is usually the treatment of choice but there have been cases described of conservative surgery with repair of the uterus following drainage of the pyometra (1,4). Generous peritoneal lavage is essential in all cases. Bacterial culture of the purulent material in the literature has shown both aerobic and anerobic organisms but E Coli is the most common pathogen identified (3).

Eggerthella is a known intestinal commensal, but a rare cause of sepsis in humans. Cases of severe disseminated disease have been reported but almost exclusively associated with gastrointestinal pathology(5). This case is particularly unusual due to both the age of the patient and the pathogen involved.

Spontaneous perforation of pyometra should be considered in the differential diagnosis for any woman presenting with an acute abdomen and sepsis. It should also remind us of the possibility of complications after early medical termination of pregnancy without prior surgical intervention.

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References

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