Hysteroscopy for Pyometra – Treading on Treacherous Grounds

To the Editor,

We report an unusual case of severe sepsis arising from a routine hysteroscopy, dilatation, and curettage performed in a postmenopausal woman with pyometria to exclude underlying malignancy.

A 63-year-old morbidly obese patient presented with an offensive vaginal discharge. She was a virgo intacta on regular prednisolone for rheumatoid arthritis and antibiotics for recurrent urinary tract infections. A pelvic ultrasound showed fluid and a mass in the endometrial cavity. She underwent a hysteroscopy, dilatation, and curettage under general anesthesia. Purulent discharge was noted draining from the cervix, and the cervix was dilated. A saline hysteroscopy was performed and purulent material precluded proper evaluation of the endometrial cavity. Minimal curettings were obtained, and there was no clinical evidence of uterine perforation. She was admitted for observation and commenced on empirical antibiotics.

Her clinical condition deteriorated 12 h later, and she required inotropic support in the Intensive Care Unit (ICU). A computed tomography scan showed a fluid collection in the pelvis and increased stranding around the uterus. She underwent ultrasound-guided drainage which yielded purulent fluid positive on culture for *Escherichia coli*. She made a good recovery following the antibiotic therapy and was discharged 5 days later. She subsequently had two further ICU admissions for intra-abdominal septic episodes which were treated with intravenous antibiotics and image-guided drainage procedures. Final pathology on the curettings revealed suppuration with chronic endometritis. She has been followed up for the past 2 years with no evidence of recurrence of the pyometra or malignancy.

Early reports noted that up to 75% of patients with pyometra have an underlying malignancy; the majority of these cases related to cervical cancer. Recent series have noted a significantly lowered risk of underlying cancer, at 10%. In majority of the cases of pyometra, patients were in the elderly age group with multiple comorbidities, and no intrauterine pathology was found. It is postulated that diminished genital tract immunity after menopause, poor hygiene, and a reservoir of adjacent enteric organisms may lead to ascending infection with the formation of pus in the uterus. Cultures obtained from pyometra often contain mixed organisms.

Most cases of pyometra were treated with dilatation and drainage procedures with no reports of increased incidence of pelvic sepsis or intra-abdominal collections in patients undergoing treatment. Pelvic infection rates after hysteroscopy in the gynecologic population has been reported in up to 1% of cases. We postulate that retrograde flushing of organisms from vagina into the pelvic cavity through the fallopian tubes may have contributed to sepsis in our patient and would like to suggest that hysteroscopy in the setting of pyometra be undertaken with caution, especially in elderly or immunocompromised patients, especially considering that the majority of patients will not have underlying malignancy. A dilation and curettage is often sufficient for diagnostic and treatment purpose, and there should be a high index of suspicion for the development of sepsis if hysteroscopic procedures are carried out in cases with pyometra.

Declaration of patient consent
The authors certify that they have obtained written consent from the patient allowing her clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal her identity.

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Conflicts of interest
There are no conflicts of interest.

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