

A Rare Case of Pyometra with Wheat Husk in Woman with Utero-Vaginal Prolapse

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Running Title: An unusual case of pyometra in postmenopausal women

Abstract: *Pyometra is a rare condition characterized by collection of pus inside uterine cavity. It is mainly associated with postmenopausal age group. Majority of the cases are associated with malignancy of genital tract or as a consequence of radiotherapy for cancer treatment. Foreign bodies in vagina like forgotten vaginal pessaries or in uterine cavity like intrauterine contraceptive device and retained fetal bones are rare causes of pyometra. Even rare, is pyometra caused by cereal grains like wheat husk. We are reporting an unusual case of pyometra caused due to presence of wheat husk as a foreign body in uterine cavity. It should be considered as a possible cause of in women with uterovaginal prolapse who work in agricultural fields.*

Keywords: Pyometra, Foreign body, Utero-vaginal prolapse

1. Introduction

Pyometra is a condition characterized by accumulation of pus in the uterine cavity. It is more common in elderly women with incidence as high as 13.6%, compared to 0.01–0.5% in the general population [1]. It is commonly associated with malignancy of genital tract but may also be associated with benign conditions like endometrial or endocervical polyps. It is rarely associated with foreign bodies like forgotten IUCD and retained fetal bones after abortion. However, pyometra caused by wheat husk as foreign body in human uterus has rarely been reported.

2. Case Report

A 65yrs old, Para 6, postmenopausal woman attended the gynaecology outpatient department with complaints of genital prolapse since last 20 yrs and single episode of bleeding per vaginum. Her general condition was good and vitals were stable. On local examination, she had 2° cervical descent with cystocele and rectocele on maximal straining which was classified as stage 2 prolapse according to POP-Q classification. On per speculum examination, vagina was healthy, cervix was congested and slight unhealthy blood stained discharge was coming through os. On per vaginal examination, uterus was bulky, retroverted and mobile and no adnexal mass. Patient was admitted and routine investigations were done. Transvaginal sonography showed anechoic collection in uterine cavity which was suggestive of pyometra [figure 1]. The woman was prepared for cervical dilatation and pyometra drainage in operation theatre. During the procedure, a foreign body in form of cereal grain along-with 4-5cc of pus was drained [figure 2]. Foley's catheter was put in uterine cavity for drainage. Pap smear with endocervical and endometrial curettage was done at a later sitting. Pap smear showed dense inflammatory infiltrate which was negative for intraepithelial lesion or

malignancy. Endometrial biopsy showed fragments of isthmus endometrium and endocervical inflamed glandular epithelium. Vaginal hysterectomy with anterior colporrhaphy, posterior colpoperinorrhaphy and pelvic floor repair was done. Cut section of the specimen showed grossly normal looking atrophic endometrium with 3cc of collection in endometrial cavity [figure 3]. Post operative stay was uneventful. Histopathological examination of specimen showed features of cervicitis and atrophic endometritis.

3. Discussion

Pyometra is collection of pus inside the uterine cavity. The first case of pyometra was described in 1812 by John et al. It occurs when there is obstruction to natural passage of drainage at the level of cervical os. The causes of stenosis include malignancy, senile cervicitis, iatrogenic (post radiotherapy or surgery) or there can be occlusion caused by endometrial polyps and forgotten vaginal pessaries.

Intrauterine foreign bodies retained in uterine cavity can be forgotten IUCD, fetal bones left after abortion or iatrogenically left substances. Most of the cases are asymptomatic and rarely are implicated in pyometra [2-8]. There have been case reports on grass awns as foreign bodies in dogs and cats. But, cereal grain as a foreign body inside uterine cavity causing pyometra in humans has only been reported in one study till date. The study was conducted in Nepalese women with uterovaginal prolapse. All the cases of uterovaginal prolapse undergoing vaginal hysterectomy in a year were included in the study. Out of an average of 80-105 cases, 15 specimens were found to have rice grains as foreign body. Pyometra was an additional finding in 3 cases [9].

In females with uterovaginal prolapse, cervical descent brings the cervical os directly in contact with the external

environment. In females, who are working in the fields there is a possibility that the grains gain access to the uterine cavity through the exposed parous cervical os. Contractions of muscles of genital tract and its light weight can aid in its migration upward through endocervical canal thus reaching the uterine cavity. Because of hygroscopic nature of the husk it may be retained inside the uterine cavity. As, after menopause endometrium is not shed cyclically, the infection which gains entry in to the uterine cavity persists leading to endometritis. The pus that gets collected inside uterine cavity is retained because of poor contractility of myometrium and senile changes in the cervix which lead to narrowing of cervical canal. Retention of foreign body and the resultant superimposed infection of the endometrium can lead to pyometra.

Patients generally present with foul smelling vaginal discharge, fever, malaise, dull lower abdominal pain and postmenopausal bleeding. However, more than 50% of the cases are asymptomatic. In rare cases of spontaneous rupture, the presentation can mimic acute abdominal catastrophe, the diagnosis of which can only be made at laparotomy. Ultrasound may reveal collection inside the uterine cavity. However, the diagnosis of foreign body depends on the acoustic shadow which is determined by the size, the density and the extent of degradation. In the present case we were not able to detect presence of foreign body on ultrasonography probably because of its small size and low density.

Management involves administration of antibiotics and drainage of pyometra followed by endometrial sampling to rule out malignancy of the genital tract. If left untreated it may result in spontaneous rupture leading to peritonitis, which though rare, is a catastrophic event. Pyometra should be kept as a differential diagnosis in postmenopausal women presenting with acute abdomen. The treatment of spontaneously ruptured pyometra is immediate laparotomy, peritoneal lavage and drainage, and hysterectomy.

4. Conflict of Interests

None

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Figure 1: Transvaginal sonogram showing hypoechoic collection in uterine cavity



Figure 2: Foreign body recovered during drainage of pyometra



Figure 3: Cut section of the specimen showing grossly normal looking endometrium and cervix