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Case Report

A colossal-sized pyometra drainage in postmenopausal female

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ABSTRACT

Pyometra is an infrequent gynecological emergency observed mostly in postmenopausal females. It requires prompt diagnosis and interventions, as it might be indicative of various gynecological malignancies and in rare cases it can also result in burst abdomen if left unaddressed. Hereby, is a case report of an 83-year-old debilitated female, P11L6, who presented with a large pyometra corresponding to 32 weeks size uterus. After she underwent a panel of radiological imaging and other investigations and ruling out all possibilities of malignancy, a decision to drain the pyometra under ultrasonography (USG) guidance was taken. The drainage required meticulous negotiation of the severely stenosed cervix. Finally, 2.5 liters of purulent fluid was drained out at once. Women was discharged in a healthy condition and advised for follow up.

Keywords: Postmenopausal female, Pyometra, Gynecological malignancy

INTRODUCTION

Pyometra is a rare gynecological condition mostly seen in elderly postmenopausal women with an incidence of 0.01-0.5% in gynecological patients requiring urgent intervention.[1] It is characterized by accumulation of purulent fluid in the uterine cavity. The incidence of pyometra increases with age. With consideration of malignancy as the prime etiology unless proven otherwise in the investigation after an intrauterine infection, other alternative causes being foreign bodies, puerperal infections or uterine anomalies.[2,3] There is an observation that patients present with vague symptoms of pain abdomen, nausea, vomiting or the symptoms might be non-existent.[3] It may rarely present as a spontaneous rupture of pyometra with remarkable morbidity and mortality.[4] A detailed investigation with ultrasound and other radiological modalities is prerequisite to understand the course of the disease and decide the mode of treatment. The treatment of choice is dilatation of the cervix and pus drainage with appropriate antibiotic coverage.[1]

CASE REPORT

An 83 years old debilitated postmenopausal woman, P11L6, all home deliveries, sexually inactive for last 25 years was brought to our emergency outpatient department (OPD) of Umaid Hospital, Dr. S. N. Medical College, Jodhpur, Rajasthan, on 31 August 2021 with chief complaints of progressively increasing abdominal swelling for the last 3 years, nausea, vomiting, constipation and decreased appetite for the last 6 months. Her last delivery was 45 years back following which she never got her periods. She had no significant past menstrual, medical and surgical history. On per abdomen examination there was a huge longitudinally ovoid abdominopelvic mass, reaching up to xiphisternum corresponding to 32 weeks gestation, mobile sideways and above downwards. It was tense cystic to solid and non-tender. On inspection, vulva was atrophic. Speculum could not be inserted in vagina.

Per vaginal examination revealed a short (2 cm), blind vagina barely admitting one finger with no discernable

cervix and the uterus could not be appreciated vaginally. Per rectal examination was suggestive of a tense cystic mass high up in the pelvis with a thick fibrotic band along the entire anterior wall suggestive of stenosed/agglutinated vagina. She was admitted for further evaluation and management. Her ultrasound revealed gross hematometra/pyometra due to cervical canal stenosis. Computed tomography (CT) scan was indicative of gross distention (19×12.8×16 cm) of endometrial canal causing myometrial thickening. Fundus of uterus reaching subhepatic region and abutting inferior surface of liver and gall bladder (GB), with abrupt narrowing of endo-cervical canal, possibility of cervical stenosis with gross hematometra. Her routine investigations complete blood count (CBC), renal function test (RFT), and liver function test (LFT) was within normal limits. Her electrocardiography (ECG) and chest X-ray were normal. 2D echocardiography (ECHO) was done which revealed left ventricle ejection fraction of 25%. Drainage of pyometra was planned under anesthesia and ultrasonography (USG) guidance after informed and written consent for the same with possibility of laparotomy.

Figure 1: Large abdominopelvic mass.

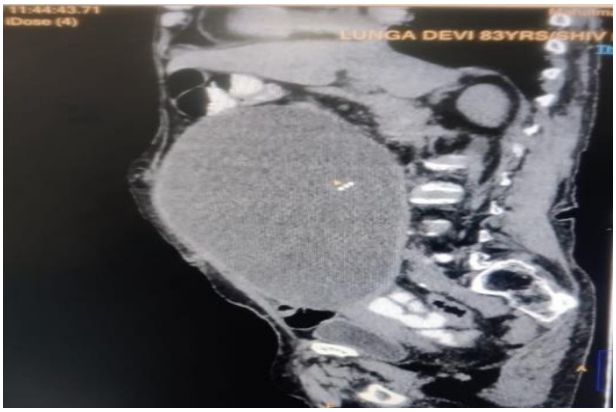

Figure 2: CT scan suggesting pyometra.

Intraoperatively effort was made to create vaginal space digitally and with blunt and sharp dissection cautiously to reach the cervix avoiding bladder and rectal injury. Cervix could not be reached, however, through the newly created narrow space, high up posteriorly a blind thick cystic mass was appreciated which was probably the posterior uterine wall. With utmost vigilance and care, we were able to insert a long Verres's needle vaginally under USG guidance into it to drain about 2.5 liters of purulent fluid and then the needle got dislodged leaving behind a significant amount of fluid in uterus seen on USG. Looking at the fragile condition of the woman, we wanted to avoid a laparotomy. A possibility of a functioning rudimentary horn with pyometra was thought of but considering her parity and the absence of any significant history in favor of it along with the MRI and USG findings, an effort was made to trace the cystic uterine mass craniocaudally which led to detection of a thick, fibrotic cervix like band densely adhered to the anterior vaginal wall ending about 5 cm proximal to the external urethral meatus. Blindly, under the guidance of a finger, the fibrotic band was caught hold of with an Allis forceps and again some blunt and sharp dissection revealed the external os. Uterine sound was negotiated carefully under USG guidance to about 5 cm where great resistance was encountered at the level of internal os. The stenosed internal os was finally negotiated with great difficulty, avoiding false passages and injury to urethra and bladder. A self-retaining Foley's catheter no 18 Fr was then placed intracervically into uterine cavity guided by a uterine sound which started draining the pus continuously. It was left in situ for 10 days to prevent restenosis of cervix. Postoperatively she was kept in intensive care unit (ICU) for observation. The urethral catheter was removed the next day and she was asked to be ambulatory. Daily dressing with estrogen cream was done to prevent restenosis of the cervix. Within 8-10 days she felt much better, comfortable and started taking semisolid to solid diet without any gastric discomfort. She was discharged in a healthy condition on day ten postoperatively with advice to follow up.

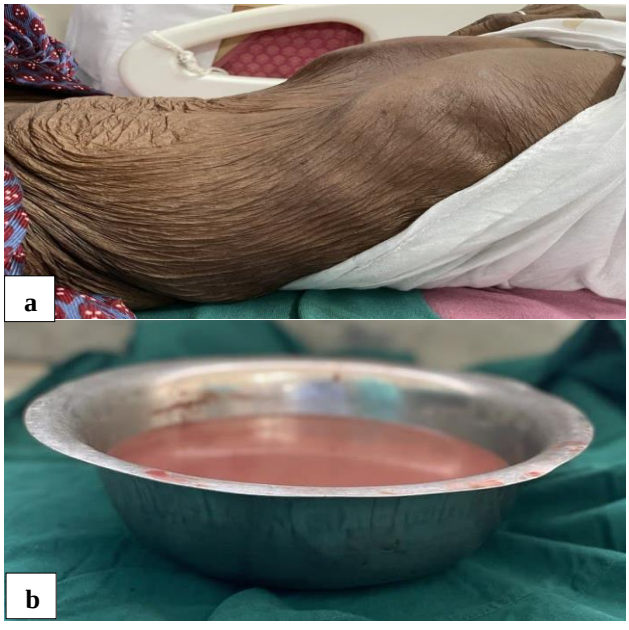

Figure 3: (a) Post pyometra drainage, and (b) pyometra drained out (2.5 liters).

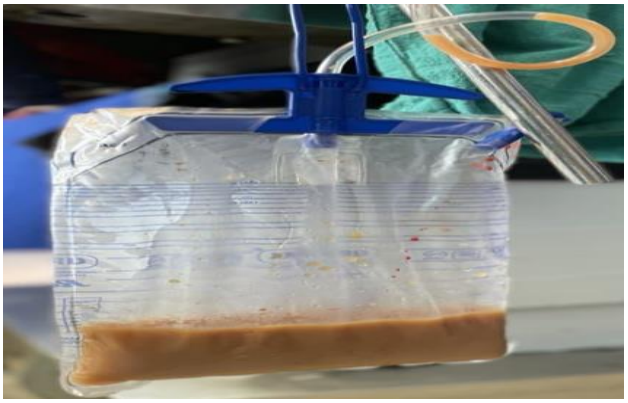

Figure 4: Pyometra drained out through intracervical catheter.

DISCUSSION

Pyometra, being one of the rarest gynecological malignancies, with predominance in elderly women.[5] Most commonly, pyometra is in conjunction with cervical cancer followed by endometrial cancer.[6] Cases of pyometra drainage have been reported from all over the world. Most of them being in postmenopausal group and reflecting the predominance of cancer cervix as the prime cause.[6] In majority, with a suspicion of cervical pathology, the drainage was accompanied by cervical biopsy and endocervical curettage. Literature till date does not includes drainage of such an immense pyometra.

In our case, with grossly normal appearance of cervix and nearby tissues, cancer cervix was ruled out. To preclude endometrial cancer, scan indicating normal endometrial thickness was obtained. In the present case, severely stenosed cervix with dense fibrosis and adhesions could be prolonged menopausal age of women with long sexual inactivity, unattended home deliveries which could've led to genital trauma resulting in fibrosis of vagina.

CONCLUSION

This case report claims USG guided drainage of the largest (32 weeks sized) pyometra amongst the recent literature available. Excluding the possibilities of any gynecological malignancies through thorough biochemical and radiological investigations, it can be concluded that this pyometra might have developed due to cervical stenosis caused by fibrosis arising from high parity and unattended deliveries and prolonged sexual inactivity.

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