



Spontaneous Perforation of Pyometra resulting in peritonitis in a Cervical cancer patient – A case Report.

KEYWORDS

peritonitis , pyometra, uterine perforation , cervical cancer

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ABSTRACT Diffuse peritonitis in elderly women is a serious condition which is associated with greater morbidity and mortality. Spontaneous perforation of Pyometra is a rare cause of peritonitis in females especially in the elderly and pyometra due to cervical cancer is very rare. We report a case of 60 year old female in whom preoperative diagnosis of peritonitis was made clinically. On exploration ,perforation of the fundus of uterus was identified ,that was subsequently proved to be due to pyometra which is secondary to cervical cancer of stage III B. Primary closure of perforation with peritoneal lavage and drainage was done. Patient improved clinically and was referred to cancer hospital for chemoradiotherapy.

Introduction :

pyometra is collection of pus in the uterine cavity. Spontaneous perforation of Pyometra is a rare cause of peritonitis with only 28 cases reported in the literature ¹⁻⁶. Furthermore spontaneous rupture of Pyometra due to cervical cancer is extremely rare and only 7 cases (including the present one) have been described so far¹. Here we report a case of 60 year old post menopausal woman who presented with features of peritonitis due to spontaneous rupture of pyometra which is secondary to cervical cancer

Case Report : A 60 year old post menopausal woman (attained menopause at 45 years age), P₄ L₂ D₂ presented to the casualty with abdominal pain of one day duration. The pain is insidious in onset, continuous and is associated with fever, constipation and decreased urine output. No history of bleeding per vagina. No significant past medical history except for well controlled type 2 diabetes. On examination patient was dehydrated with temperature 99 ° F, Pulse rate 120/ min, B.P 110/60 mm Hg. Abdomen was distended with diffuse tenderness, guarding, rigidity and shifting dullness was present on percussion. Peritoneal tap revealed yellowish non feculent fluid. P/R examination showed collapsed rectum and hard mass palpated through anterior wall.

Lab studies detected leucocytosis 18,300 cells / mm³ with PMN constituting 89% . Abdominal X ray was suggestive of normal study except for small bowel gas shadows in pelvis. Ultrasonography revealed ascites with left hydronephrosis. Based on the diagnosis of peritonitis, emergency Laparotomy was performed, 2 ltrs of purulent fluid evacuated, and stomach, bowel ,omentum, liver were normal. After thorough search a 1X0.5cm perforation was identified in fundus of the uterus with pyometra with hard mass extending from lower uterine segment to the left side pelvic wall involving left ureter(Fig 1). Right parametrium was free. An empirical diagnosis of carcinoma cervix

stage III B was made after consulting duty gynaecologist.

Biopsy was taken from the edge of the perforation and the perforation was closed primarily with Vicryl 2 – 0 . Attempt to drain pyometra vaginally, by passing dilators was failed. Peritoneal Lavage and Peritoneal Drainage done. Biopsy of uterus revealed edema, chronic inflammatory infiltrate, extravasated RBC and area of necrosis with no evidence of malignancy. Biopsy of the cervix revealed well differentiated squamous cell carcinoma of cervix (Fig 2). Patient improved clinically and was referred to cancer hospital for chemoradiotherapy.

Discussion : Pyometra is an uncommon condition occurring mainly in the elderly women. It is caused by stenosis of the cervical canal resulting from Carcinoma Cervix, as a sequela of the amputation of cervix, as the result of radiation and post menopausal involution of the uterus leading to cervical stenosis. Apart from these obstructive lesions, it is a very common associate of carcinoma of the endometrium and tubercular endometritis. The pent up discharges from the glands of the endometrium collect in the uterus and become infected, the infection probably reaching the body of the uterus from the vagina ⁷ . The benign or malignant conditions cause accumulation of secretions and gradual enlargement of the uterus, leading to thinned uterine walls which may be sloughed with spontaneous uterine rupture and causing generalised peritonitis ⁸ .

Spontaneous perforation of Pyometra is a rare entity. Spontaneous rupture of pyometra in cervical cancer presenting as generalised peritonitis is still rare. We reviewed all the cases of spontaneous uterine perforation in cervical cancer and the findings are summarised in table 1 ⁹⁻¹¹

Table 1 . characteristics of the patients with spontaneous uterine perforation caused by pyometra

Author	Age (yrs)	Clinical Diagnosis	Treatment	Histopathological examination	Malignancy
Saha PK	60	pGIT	Sub TAH with BSO+PP	Gangrene and infection	NO
Geranpayeh L	63	pGIT	TAH with BSO +PP	Uterine infection	NO
Inui AI	88	peritonitis	Sub TAH with BSO +PP	pyometra	NO
Sahoo SP	50	Hollow viscus perforation	TAH with BSO +PP	Uterine infection	NO
Yousefi	70	Peritonitis	TAH with BSO +PP	pyometra	YES
Present case	60	Peritonitis	Perforation closure + PP + PD	Cervical carcinoma	YES

Abbreviations: TAH, total abdominal hysterectomy ; BSO, bilateral salpingo-oophorectomy; PP, peritoneal lavage; pGIT , perforation of gastro intestinal tract; PD , peritoneal drainage

The index case also presented with features of generalised peritonitis like the other patients. The most common perforation site was the uterine fundus. Perforated pyometra was not the preoperative diagnosis in any of the cases. If suspected, preoperative diagnosis of perforated pyometra can be done by ultrasonography, CT and MRI. The treatment of ruptured pyometra is immediate laparotomy, peritoneal lavage, drainage and or hysterectomy when required. The cases of spontaneously perforated pyometra not associated with malignancy have better prognosis as compared to those cases that are associated with malignancies. This conclusion is based on the fact that 73% of non malignant cases vs. 33% of malignant cases had a favourable prognosis for survival ¹²⁻¹³ .

Conclusion: Spontaneous rupture of pyometra in cervical cancer is very rare. High index of suspicion is required to make appropriate diagnosis .A diagnosis of perforated pyometra should always be kept as a possibility in all cases of acute abdomen with peritonitis and or pneumoperitoneum in elderly women.

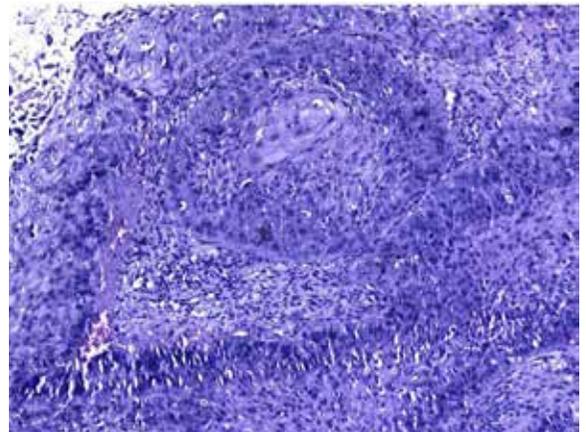


Fig : 2 cervical biopsy showing squamous cell carcinoma

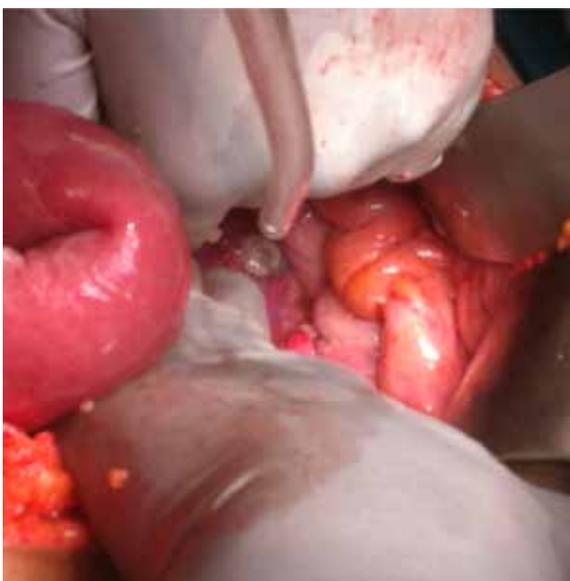


Fig 1 : Intraoperative photograph showing uterine perforation

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