

PELVIC ACTINOMYCOSIS MIMICKING MALIGNANCY OF THE UTERUS: A CASE REPORT

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INTRODUCTION

Actinomycosis, though uncommon, is a chronic bacterial infection, suppurative and granulomatous in nature, caused by bacteria of the genus Actinomyces.

It induces a chronic, suppurative illness characterised by an infiltrative and granulomatous response and thus the clinical and radiologic findings may mimic other inflammatory and neoplastic conditions.^[1]

PATHOGENESIS

Mucosal disruption may lead to infection virtually at any sites in the body.^[2] Conditions causing anaerobic environment-bacterial vaginosis, Intrauterine Devices fosters the growth of microorganisms (wires that are left in the exocervix).^[3]

The symptoms of pelvic actinomycosis associated with the use of an IUD can imitate symptoms of gynaecological malignant tumours, uterine myoma, or adenomyosis when presenting as a genital mass without fever. The infection can disseminate to the uterine tubes (salpingitis) subsequent destruction of the ovarian parenchyma.^[4]

CASE REPORT

A 53yr old, para 2 reported to outpatient department of Kamla Nehru Hospital, Shimla with complaints of 1 episode of postmenopausal bleeding. The episode lasted for 3 days, patient changed 1pad/day with minimal passage of clots, not associated with pain. Patient attained menopause 7yrs back. There was no history of any postcoital bleeding, sensation of something coming out of introitus, discharge per vaginum, urinary problems like dysuria or frequency of micturition, history of weight loss or loss of appetite, family history of endometrial/ ovarian malignancies, retained or forgotten IUCD. Patient was a known case of diabetes mellitus type II since 2 years, was on irregular medications. No other significant past and family history.

On general physical examination was normal. On abdomen examination- soft, no organomegaly, no abnormality was found. On P/S examination -cervix & vagina healthy. On bimanual examination: uterus was enlarged to 6- 8 weeks in size, firm mobile, non tender,

with e/o a cystic mass~4x4cm, mobile, non tender felt in right adnexa. Left adnexa clear. On P/R examination: a vague fullness in POD appreciated.

Her investigations were Hb: 10g/dl, Urine analysis: normal. FBS: 309mg/dl and HBA1c: 9.4g%. Other biochemical tests-WNL. Pap smear: negative for intraepithelial neoplasia. Chest Xray: WNL.

Her ultrasound pelvis showed enlarged uterus with ET of 3.3mm with irregular posterior wall and a heterogeneously hyperechoic mass lesion of size of 6.5x4.5cm with local infiltration of adjoining soft tissue with increased vascularity of mass suggestive of sarcomatous changes. Bilateral ovaries were normal in size, outline and echotexture.

CECT abdomen and pelvis showed heterogeneously enhancing solid cystic lesion in left adnexa 5.5x 4.1cm, ill defined fat planes with uterus, laterally abutting left iliac vessels, abutting left ureter causing proximal left HDUN s/o malignant etiology. Anteriorly fat planes with urinary bladder were maintained. Another heterogeneously enhancing soft tissue lesion extending across either side of pelvis which is having ill defined fat planes with uterus anteriorly around 2x5.8cm, posteriorly having ill defined fat planes with ureter. e/o asymmetrical circumferential thickening involving rectum and marked surrounding stranding ? Infiltration? Inflammation. With malignant infiltration to presacral region.

Preoperatively, patient was put on insulin for diabetes mellitus type II & underwent left sided DJ stenting for left HDUN before operation. Patient underwent Exploratory Laparotomy proceed total abdominal

hysterectomy with bilateral salphingoopherectomy for ?Leiomyosarcoma Uteri (Stage Ia)

Intraoperatively there was e/o flimsy adhesions between omentum and bladder. Grossly uterus was normal in size, shape and contour. Right ovary and right fallopian tubes were normal. There was e/o adhesions in pouch of Douglas and posterior surface of uterus, gut loops, left fallopian tube, left ovary forming a jumbled up mass on left side. Adhesiolysis was done which was followed up by total abdominal hysterectomy with bB/L salphingooperectomy. On cut section of uterus: e/o a sessile submucosal fibroid of 2x3cm size at the fundus, pale yellow, with soft feel with loss of characteristic whorled appearance ? Malignant change.

Histopathological examination revealed multiple micro abscesses in the myometrium. Numerous bacterial colonies were seen at the centre of these abscesses, these colonies were characterised by clumps of basophilic filamentous bacteria in rosette like configuration with eosinophilic cells at the periphery (spendore-hoepli phenomenon). Diagnosis of Actinomycosis of uterus and left ovary and fallopian tube was established..

The patient was treated with high doses of penicillin G (20 million units per day) for 3months postoperatively.

DISCUSSION

Actinomycosis is an uncommon, chronic, suppurative infection caused by the Actinomycosis species. Habitat - normal flora in the oral cavity, gastrointestinal tract and female genital tract. Unable to cross the mucosal barrier. Breach in mucosal barrier. Infection occurs yielding a characteristic granulomatous response abscess formation, necrosis, reactive fibrosis. The association between pelvic actinomycosis and long standing IUD is well known. Incidence: 7% with IUCD for >2 years against 1% in nonusers. The clinical findings of pelvic actinomycosis are variable and nonspecific and include weight loss, nonspecific abdominal or pelvic pain, breakthrough bleeding or abundant vaginal flow, and, on rare occasions, fever. The clinical findings as well as imaging finding, often lead to the misdiagnosis of neoplasm. Its tendency to involve surrounding structures may mimic a tumor on imaging studies.^[5]

On examination of cervical smear, or vaginal discharge, sulphur granules of Actinomycosis can be seen on microscopy. In laboratory studies, leucocytosis, erythropania, high ESR; high values of CRP. Tumour markers: Ca 125, Alpha-fetoprotein (slightly raised). Diagnostic images: CT, MRI, USG, X-rays, and laparoscopy are helpful. In many cases, the diagnosis is made through a histological examination of samples obtained surgically during laparotomy or laparoscopy.

CONCLUSION

Pelvic Actinomycosis is an uncommon infection, no epidemiological studies have been conducted to

determine its prevalence or incidence. Recognition of the infection is important to minimise morbidity and to avoid unnecessary surgery. However its rarity, together with sometimes non-specific imaging and clinics-laboratory findings complicates with differential diagnosis leading to delayed diagnosis. All IUD users should have annual gynaecological follow-up, with specific attention paid to inflammatory symptoms.^[6]

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