

Case Report

Pelvic actinomycosis associated with long term use of intrauterine contraceptive device.

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Introduction:

Pelvic actinomycosis is a rare and serious bacterial infection complicating long term use of intrauterine contraceptive devices (IUCD)¹. It is often confused with malignancy, endometriosis or tuberculosis and usually diagnosed postoperatively. We report a case which was diagnosed after hysteroscopy.

Case Report:

A 55-year-old woman presented with complaint of post menopausal bleeding for one month, which varied from spotting to mild bleeding. She had been investigated outside and diagnosed as a case of carcinoma of the endometrium. She had one full term vaginal delivery 30 years ago and used contraception thereafter. She got intrauterine contraceptive device (CuT) inserted 27 years ago which was changed thrice every three yrs. The last

CuT was inserted 18 years back. The patient went to a doctor for its removal after three years and was informed that it was removed.

On general examination there was no significant positive finding. Speculum examination revealed a healthy vagina and cervix. Vaginal examination revealed no abnormality. Hematological and biochemical tests were unremarkable. Pap smear showed inflammatory changes. Ultrasonography reported a linear hyper echoic shadow in the endometrium suggestive of retained CuT. Abdominal x-ray was subsequently done which revealed an intact CuT lying in the pelvis. The patient was taken up for hysteroscopy, which showed normal cervical canal and lower end of IUCD lying just above the cervical canal. It was removed without difficulty. There were clots & fibrosis in the endometrial cavity (Figure 1). Cheesy curettings with necrotic, suspicious appearance were obtained and sent for histopathology.

Histopathology of the curettings showed endometrial cells with excess stroma and acute inflammatory cell clusters. In addition, granulation tissue with filamentous bacilli (sulphur granules) suggestive of actinomycosis was present (Figure 2).

The patient came for follow up one week after hys-

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Fig 1 : Hysteroscopy showing fibrosis

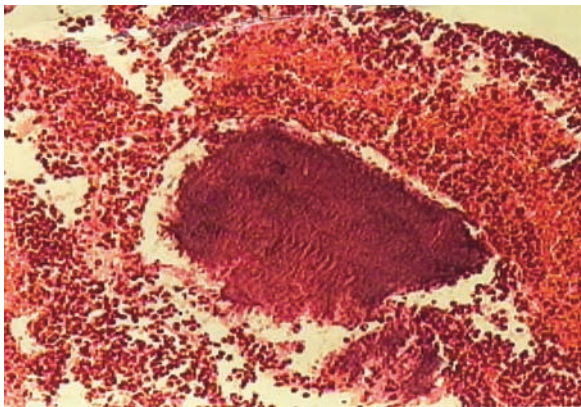


Fig 2 : Sulphur granules

teroscropy and ultrasonography showed the endometrial cavity filled with mixed echogenic shadows suggestive of pyometra. Pelvic MRI was done to assess the extent of spread of actinomycotic infection, which showed it to be confined to the uterus. Drainage of pyometra was done, and 20mL of foul smelling pus removed, which was sent for aerobic and anerobic culture, which later turned out to be negative for all types of organisms. She was given intravenous metronidazole 500mg thrice a day, amikacin 500mg twice a day and co-amoxiclav 1.2g thrice a day for one week, followed by intravenous amoxicillin 500mg thrice a day for the next 2 months. Her two subsequent visits at weekly intervals showed the collection in uterine cavity to be gradually decreasing. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done after 2 months of intravenous antibiotic therapy. Histopathology of the

specimen showed ulceration and lymphocytic plasma cell infiltration in the cervix and endometrium. Thickening of the serosa was also present, while myometrium and ovaries were normal. The patient stood the operation well, and was continued on intravenous antibiotics for two weeks, followed by oral amoxicillin for another 8 weeks. The patient is healthy 6 months after discontinuation of treatment, with no signs and symptoms of pelvic disease.

Discussion:

Actinomycosis is a chronic infection caused by *Actinomyces israelii*, a gram positive anerobic bacterium, which is a normal commensal of female genital tract. It has a strong correlation with the prolonged use of IUCD². The presence of actinomyces like organisms (ALO) has been reported in 3% of the females after prolonged use of CuT. It has been suggested that the presence of ALOs in the absence of evidence of pelvic infection does not require removal of IUCD and antibiotic therapy³.

Pelvic and abdominal actinomycosis is rare, suppurative granulomatous disease caused by the spread of organisms in the genital tract. It can present with a wide range of manifestations varying from pyometra, complex abdominopelvic mass⁴, pelvic abscess, and can infiltrate into the rectosigmoid, bladder⁵ and retroperitoneal space. The diagnosis is usually made postoperatively by the histological appearance of typical sulphur granules composed of filamentous bacilli embedded in eosinophilic proteinaceous exudates. Treatment of actinomycosis requires a balanced combination of chemotherapy and surgery⁶. The usual modality of treatment is intravenous penicillin for about 6 weeks, followed by prolonged therapy with oral penicillin. The total duration of treatment varies from 4-12 months, according to severity of the disease. However, some authors have recommended a shorter period of antibiotic therapy in localized disease.

In our patient, hysteroscopy proved to be a useful tool for the accurate diagnosis, reducing the need for unnecessary radical surgery. The operative morbidity was further reduced by the use of pre-operative antibiotic therapy. The optimum time of surgery was decided so as to decrease the duration of inconvenient and expen-

sive parenteral antibiotic therapy, and free the pelvis of the disease.

The possibility of actinomycotic infection should be considered in all the cases of impacted or forgotten IUCDs in order to improve the diagnosis and management of this rare disorder.

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