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ACTINOMYCOTIC ENDOMETRITIS : A RARE CASE REPORT

Obstetrics & Gynaecology

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ABSTRACT

Actinomycosis of the uterus is a extremely rare disease accounting for 0.02%. In women, pelvic actinomycosis is closely associated with prolonged use of the intrauterine devices (IUD). The management mainly requires the use of intravenous antibiotic therapy and surgery. Here we report a case of endometrial actinomycosis within few years of IUCD insertion and its way of management.

KEYWORDS

INTRODUCTION:

Actinomycosis of the uterus is a extremely rare disease accounting for 0.02%(1). Actinomycosis of the female genital tract is directly related to long-term use of the intrauterine devices especially for more than 5 years (2). Prolonged insertion of an intrauterine device causes mild inflammatory changes in the endometrium causing necrosis that creates an anaerobic environment favoring the growth of the Actinomycetes(2). The three main clinical forms of actinomycosis include cervicofacial, thoracic, and abdominopelvic. The last form accounts for approximately 20% of the cases (3). In women, pelvic actinomycosis is closely associated with prolonged use of the intrauterine devices (IUD) (3,4).The management mainly requires the use of intravenous antibiotic therapy and surgery. Here we report a case of endometrial actinomycosis within few years of IUCD insertion and its way of management.

Case Report:

A 43 year old Para 2, Live 2 female presented with complaints of Heavy menstrual bleeding for 3 months. She had a 6/28 days cycle soaking 8 to 10 pads per day. She also complained of breathlessness and palpitations for last 1 month. She had previous 2 normal vaginal delivery and not sterilized. She gave history of IUCD (Intrauterine Copper Device) insertion 2 years back in a tertiary care centre. She had nil comorbidities and nil past medical and surgical history. She gave allergic history to injection iron sucrose.

On examination : Moderately built with BMI - 26 kg/m^2. Severe pallor found.

Per abdominal examination: Soft and not tender

Per speculum examination: Cervix and vagina healthy, CuT thread seen

Per vaginal examination: Cervix pointing downwards, Uterus anteverted and corresponding to 14weeks gestation with posterior forniceal fullness. CuT thread felt.

Investigations :

Hemoglobin- 4.7g%
Peripheral smear - Dimorphic anemia
Ultrasonography -

- Uterus ~ 10× 7× 6 cm
- Fibroid of size 7.3 × 6.7 cm noted in posterior myometrium
- A seeding fibroid of size 1.5 × 1.5 cm noted in anterior myometrium
- ET – 4.6 mm
- IUCD insitu
- Right ovary 2.3 × 1.2 cm
- Left ovary – obscured by bowel gas shadows

Endometrial sampling (Pipelles biopsy) : Chronic endometritis with Actinomycosi

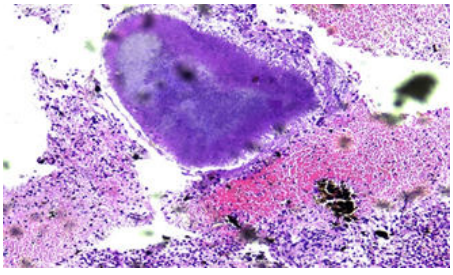

Figure 1: Endometrial sampling : Colonies of actimycosis infilterated with lymphocytes and plasma cells.

Hemoglobin level optimised by blood transfusion. Multidisciplinary term including Gynecologist, General physician, ENT specialist, Pulmonologist were involved.

CT PNS : Normal findings except for mild deviated nasal septum to right side

CT Thorax : No Pulmonary parenchymal abnormalities detected

CT abdomen : Bulky uterus (measuring 12.2 × 9.4 cm) possibly with IUCD.

Hence systemic actinomycosis ruled out.

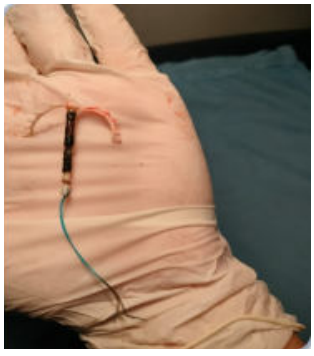

Figure 2: CuT 375 inserted 2 years back(removed).

Patient was planned for injection cefoperazone administration but she developed anaphylactic reaction. Therefore she was started on Inj.Amoxicillin 1.2g i.v thrice a day along with Tablet Doxycycline 100mg two times a day. After a week of intravenous antibiotics course, IUCD removal done. She was then started on Tablet Pencillin G 400mg thrice a day for 3 weeks.

She underwent hysterectomy with bilateral salpingooophorectomy for the symptomatic fibroids after correcting anemia. Histopathology of the endometrium post surgical procedure revealed no evidence of actinomycosis. She was then discharged with advice to continuous Tablet pencillin 400mg thrice daily for 3 more months.

DISCUSSION:

In a study Chiesa-Vottero has found only seven cases (0.02%) of actinomycotic endometritis among 28,906 endometrial biopsies (1).Approximately 7–13.7% of women using an IUD may have a finding of Actinomyces like microorganisms on a Papanicolaou test (2).Actinomyces species are the cause of actinomycosis, a persistent suppurative disease. They are anaerobic or microaerophilic Gram-positive bacteria that have a propensity to split into rod-like branching filaments (3,4). These are commensals that are typically found in the female vaginal tract, the gastrointestinal system, and the oral cavity (3,4). Actinomycetes are not normally able to penetrate the mucosal barrier and induce illness. The primary risk factors for contracting an infection are immunosuppression, chronic inflammatory diseases, and mucosal irritation from trauma or foreign objects (3,4). Bacterial penetration into deep tissue is made possible by these pathologic circumstances because they compromise the mucosal barrier (3). Actinomycosis displays particular clinicopathologic features. One of the characteristics is the spread of heavily fibrotic foci in the connective tissue. Advanced lesions are accompanied by abscesses formation, which may lead to the development of sinuses and fistulas to adjacent organ structures (3). Histologically, actinomycosis is characterized by the finding of "sulfur granules", which are composed of the bacterial elements and tissue debris. In hematoxylin-eosin staining, "sulfur granules" are identified as round or oval basophilic masses with a radiating fringe of club-shaped configurations (Splendore-Hoeppli phenomenon) (3). If an IUD is present, it must be removed and penicillin treatment must begin as soon as pelvic actinomycosis is detected [5]. In the event of a penicillin allergy, tetracycline, clindamycin, and erythromycin can be utilised [5]. The surgical procedure involves cutting and draining the abscess, as well as removing the infected tissues and fibrosis. Avascular and necrotic lesions, as well as the anaerobic nature of the actinomycotic infection, dictate that oral administration of penicillin V (2-4 g/day) for several months after a course of intravenous injection of 10–20 million penicillin G for two weeks [5]. Recurrence and complications, such as extension to the pelvic organs, intestinal or cutaneous fistula, and systemic dispersion, may arise in the absence of surgical intervention [5]. Pelvic actinomycosis, which accounts for 3% of human actinomycosis cases, is an incredibly uncommon chronic illness (5).It is quite challenging to detect pelvic actinomycosis preoperatively. The results of the clinical and laboratory tests are not specific. Vaginal discharge, haematuria, and lower abdominal mass and pain are the signs and symptoms that are currently evident. Fever and an increased white cell count or ESR are occasionally observed [6]. A search for distinctive sulphur granule appearances should be part of the histopathologic evaluation of the diseased tissue. The 40-400 ìm granules have a mycelium-like structure and stain Gram-positive. Actinomyces species must be cultivated using recently acquired material, and transportation must be completed right away in designated anaerobic containers [6]. The standard recommendation is to start intravenous penicillin G therapy (20 million IU/day). It is generally advised to start treatment with intravenous penicillin G (20 million IU/day) for four weeks, and then to take oral penicillin V (2-4 g/day) for a period of two to twelve months [6]. Clindamycin or tetracycline can be used with good outcomes in situations of penicillin intolerance [6]. It is important to remember that actinomycosis almost invariably requires surgery. When there is a high suspicion of pelvic malignancies, when there is compression on the bowel or urinary system, or when the pelvic abscess is growing despite IV antibiotherapy, surgery is required. In our case, after one month of antibiotic therapy (both intravenous and oral) to confine the actinomycosis, patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy in view of large symptomatic fibroids after ruling out extrauterine spread of actinomycosis. To our surprise, there was no evidence of actinomycosis in the post surgery specimen. This explains the importance of antibiotic therapy in early disease.

CONCLUSION:

This article highlights the importance of pencillin therapy in actinomycotic endometritis especially when identified at the early stage. This being a rare entity, we hope to contribute to the current literature in establishing a clear consensus guidelines for to aid in decision making and improve patient heath.

REFERENCES:

1. Chiesa-Vottero, Andres G. M.D.. Actinomycotic Endometritis. International Journal of Gynecological Pathology 38(2):p 138-142, March 2019. | DOI:10.1097/PGP.0000000000000476
2. Bartoš V, Doboszová J, Sudek M. Actinomycotic Endomyometritis Associated with a Long-Term Use of Intrauterine Device Lasting for 42 Years. Acta Medica (Hradec Kralove). 2019;62(1):35-38. doi: 10.14712/18059694.2019.44. PMID: 30931895.
3. Heo SH, Shin SS, Kim JW, et al. Imaging of actinomycosis in various organs: a comprehensive review. Radiographics 2014; 34: 19–33.
4. Prabhala S, Erukkambattu J, Basavanapalli M, Tanikella R. Endometrial actinomycosis associated with intrauterine contraceptive device forgotten for 44 years. MedJ DY Patil Univ 2016; 9: 231–3
5. Ferjaoui MA, Arfaoui R, Khedhri S, Hannechi MA, Abdessamia K, Samaali K, Fezai W, Salhi M, Malek M, Neji K. Pelvic actinomycosis: A confusing diagnosis. Int J Surg Case Rep. 2021 Sep;86:106387. doi: 10.1016/j.ijscr.2021.106387. Epub 2021 Sep 6. PMID: 34507193; PMCID: PMC8433244.
6. Onal, Eda Demir et al. Successful outpatient management of pelvic actinomycosis by ceftriaxone: a report of three cases. Brazilian Journal of Infectious Diseases [online]. 2009, v. 13, n. 5 [Accessed 23 July 2024], pp. 391-393. Available from: <https://doi.org/10.1590/S1413-86702009000500016>. Epub 16 Apr 2010. ISSN 1678-4391. https://doi.org/10.1590/S1413-86702009000500016.