Case report of Pelvic actinomycosis presenting as a complex pelvic mass suspicious for malignancy

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OBJECTIVES

Pelvic actinomycosis is a chronic granulomatous infection caused by gram-positive anaerobic bacteria Actinomyces israelii, which constitutes 3% of actinomycosis infections. Approximately, 20% of the actinomycosis infections occur in the abdomen and pelvis. Actinomycosis is a chronic infection characterized by the presence of dense fibrous tissue and pus. The infection does not invade the mucosa. It commonly requires tissue trauma or foreign body such as following abdominal surgery, tubo-ovarian abscess and IUCD. It can be also induced by oro-genital contacts.

Pelvic actinomycosis is insidious in onset, often occurs as a firm mass that appears fixed to the surrounding tissues and often mistaken for pelvic malignancy. It is also mistaken for other conditions such as diverticulosis, abscess and inflammatory bowel diseases, which presents a diagnostic challenge pre-operatively. Most of the cases are diagnosed by only post operative or intra-operative means. Herewith, we present a case initially thought to be pelvic malignancy and later diagnosed as pelvic actinomycosis post operatively.

INTRODUCTION

A 42 year old woman presented with complaints left iliac fossa pain of two months duration which was then worsened with fever, dysuria and vomiting. Previously, she had a 6 year history of IUD use. She also experienced a ten kilogram weight loss over several months. Physical examination showed a tender left sided adnexal mass which was also palpable per rectum. The IUD was removed during the pelvic examination and there was no cervical excitation or vaginal discharge present. Biochemical and haematological investigations demonstrated a raised CRP (78.8) and also raise in WBC (20.72) and neutrophil count (19.27) with normochromic, normocytic anaemia (Hb 8.8). Blood culture (PLT 607,000/L). Her renal panel and liver function tests were normal. Her urine analysis showed raised WBC. Her ovarian tumour markers were normal. CT and MRI showed a complex left adnexal mass measuring 7.4 cm X 6.8 cm which was inseparable from the rectum, suggesting invasion with sigmoid colon thickening and also left ureteral compression with hydronephrosis.

She was started on intravenous antibiotics for treatment of pyelonephritis and possible pelvic inflammatory disease and the decision was made to proceed with exploratory laparotomy after 4 days of admission when she was afebrile. Intra-operative findings showed diffuse peritoneal inflammation, a fibroid uterus, and a left sided 8 cm tubo-ovarian abscess involving the left ureter and sigmoid colon. Omentum and intra peritoneal survey was normal. A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. Frozen section confirmed tubo-ovarian abscess with actinomycosis infection and no evidence of malignancy. Her post operative recovery was uneventful. Her PAP smear was normal and also showed actinomycosis like organism. She was discharged with a six month course of oral Penicillin V for treatment of the actinomycosis.

PICTURES

CONCLUSIONS

Pelvic actinomycosis is often mistaken for pelvic malignancy. Pelvic actinomycosis should be considered in patients with pelvic mass especially, who are using IUCD. Post operative histology and cytology can confirm diagnosis. Removal of the infected pelvic mass with effective antibiotic therapy will be helpful to cure most of the pelvic actinomycosis cases.

Moreover, surgeons should be aware of the conditions in order to avoid excessive or redundant surgery in view of the conditions mimicking malignancy. Awareness regarding the presentation and effective diagnosis will be helpful to treat most of the cases, and even in cases with extensive infection, effective management can be considered by means of combined surgery and antibiotic therapy.

REFERENCES