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Case report

ABDOMINAL ACTINOMYCOSIS PRESENTING AS SIMPLE ACUTE APPENDICITIS

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ABSTRACT

Actinomycosis is an uncommon chronic infection. It usually occurs in the cervicofacial, thoracic and abdominopelvic region. In abdominopelvic actinomycosis the ileum, ceacum and appendix is involved usually as a mass. In our case, there was no mass clinically or radiologically. He had tenderness right lower quadrant of abdomen, clinical diagnosis of acute appendicitis was made and appendicectomy done. Histopathological report showed bacterial colony or sulphur granules surrounded by acute and chronic inflammatory cells.

Keywords: Abdominal actinomycosis, Acute appendicitis

INTRODUCTION

Abdominopelvic actinomycosis is a rare condition caused by *Actinomyces israeli* [1] Most of the cases reported, describe localized forms demonstrating masses, pseudotumors or abscesses during radiological studies or surgeries [2]. We report a case in which this disease presented as simple acute appendicitis, and the etiology, actinomycosis [1] was proved only in the histopathological report [3]. There was no mass in the abdomen clinically or radiologically [4]

CASE REPORT

A male, 22 years old, came to our hospital with complaint of abdominal pain for two days, vomiting one day and fever one day. On examination he was febrile 101° F, tachycardic 102/min. Examination of abdomen revealed rebound tenderness over the right lower quadrant, no guarding, no rigidity, no mass palpable. Blood investigations were normal except for an elevated leucocyte count of 16,600 cells/cu.mm with 70% neutrophils, ESR of 110mm in the first hour. Test for HIV was non-reactive. Ultrasound of the abdomen was suggestive of acute appendicitis, no mass. A preoperative diagnosis of acute appendicitis was made. Patient was taken up for emergency appendicectomy under spinal anesthesia. The appendix was turgid and inflamed with tip perforated. Caecum and distal ileum was normal, no mass. Appendix was sent for histopathological examination.

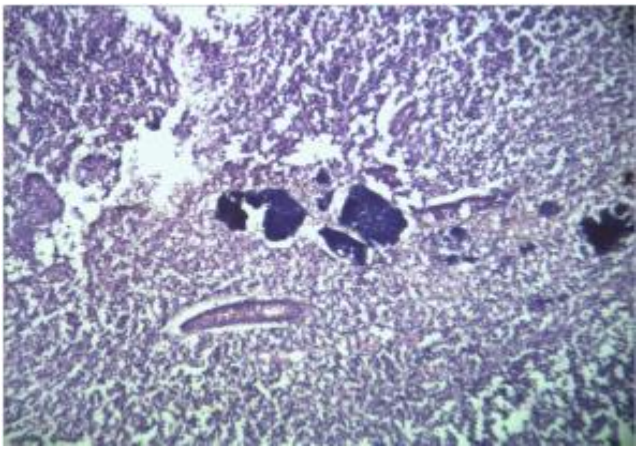

Fig.1: Photomicrograph shows the central abscess with bacterial colony or sulfur granules surrounded by acute and chronic inflammatory cells. Rudimentary appendicular mucosa .

Post operative period was uneventful, sutures were removed on the 7th post operative day. He was treated with crystalline penicillin 30 lacs intravenously 6th hourly for 6 weeks and discharged with Amoxicillin for another 6 months. Patient was doing well when he was followed up 3 months later.

DISCUSSION

Actinomycosis is a rare granulomatous disease caused by an anaerobic gram positive bacterium, generally *Actinomyces Israelii*[1] and affects mainly cervical and thoracic regions. One fifth of the cases have an abdominal localization simulating other conditions [5] Actinomyces species are considered part of normal flora found in the oral cavity, gastrointestinal and genital tracts. [2] They are considered opportunistic pathogens, since they take advantage of the anaerobic environment produced and when the mucosal barrier is broken, it penetrates the mucosa, starting up a granulomatous and suppurative inflammation.[6,7] Common symptom and sign include fever and leukocytosis.[8] Histopathology confirms the diagnosis showing granulomas and focal sulphur granules the characteristic lesion of actinomycosis. All cases reported about abdominal actinomycosis describe localized forms demonstrating masses, pseudotumors or abscesses during surgeries or radiographic studies.[2] There are very few reports about acute appendicitis caused by actinomycetes. The most common organisms involved in gangrenous and perforated appendicitis are *E.coli*, P*eptostreptococcus*, *bacillus fragilis* and *Pseudomonas* species. Rarely actinomyces species is involved in this process.

Preoperative diagnosis of abdominal actinomycosis is difficult. An accurate diagnosis is always obtained by histological or microbiological examination. Recognition is important because successful treatment requires combined surgery and prolonged penicillin treatment. [3,5]

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