

Abdominal Actinomyces

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ABSTRACT

This case report describes abdominal Actinomyces of the greater omentum which was detected accidentally in a patient who had been suffering from right lower quadrant abdominal pain mimicking acute appendicitis. She had history of previous appendisectomy. During surgery multifocal masses were detected in greater omentum, suspicious of inflammation. She had partial omentectomy done and the specimen was sent for histopathological examination. The histopathological examination confirmed it to be Actinomyces. The patient had an intensive antibiotic therapy prescribed in order to prevent a disease relapse because it was not sure whether the remaining part of omentum was affected by microscopic Actinomyces.

KEY WORDS: Abdominal Actinomyces.

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INTRODUCTION

Actinomyces spp. cause a chronic suppurative, granulomatous disease, which is characterized clinically by extensive abscess formation, recurrent draining of sinuses and fistulae. The histological hallmark is the presence of so-called "sulphur granules".¹ *Actinomyces spp.* are gram positive, non-motile, unencapsulated, non-spore forming, anaerobic bacteria which colonize in the normal flora of the oral cavity, the gastro-intestinal system and the female genital tract.² There are six types of actinomyces defined that cause Actinomyces in humans.³ *A. israelii* is the most common *Actinomyces spp.* Actinomyces

presents in different clinical forms: cervicofacial, thoracic, abdominal and cerebral Actinomyces.⁴ The most common clinical forms are cervicofacial and abdominal Actinomyces. The patients with abdominal Actinomyces may present with abdominal mass and or abscess. In this case, it was initially diagnosed as colon tumor before surgery. Definite diagnosis of abdominal Actinomyces was only made on histopathological examination.

CASE REPORT

A 45 years old woman with right lower quadrant pain, fever and vomiting that persisted for three days was admitted to a hospital. On physical examination, her pulse rate was 96-beats/min, her body temperature was 37.4°C and she had tenderness and rebound pain in the right lower quadrant of the abdomen. The laboratory findings were within normal limits. The patient had history of appendisectomy one year back. Because the patient's clinical signs suggested acute abdomen, surgery was performed. Multiple masses about 1cm in size were found on the greater omentum. The abscesses were excised and partial resection of greater omentum was done. Pathological and light microscopic examination showed Actinomyces colonies between inflammatory cells (Fig-1). Postoperatively the patient received antibiotic intravenously each day for 14 days, followed by antibiotic orally three times a day for three months.

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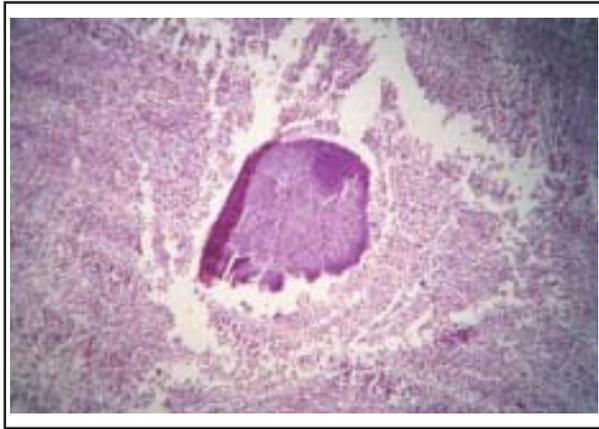


Fig-1: On histologic examination, the abscesses show Actinomyces colonies between inflammatory cells (hematoxytin-eosin stain, original magnification 400).

DISCUSSION

In this case a 45 years old woman presented with right lower quadrant abdominal pain, fever and vomiting. The laboratory findings were within normal limits. The patient had a past history of appendectomy and no history of IUCD use. Abdominal Actinomycosis is a rare and insidious clinical entity.^{5,6} It should be considered in the diagnosis of a patient who presents with non-specific symptoms and signs including fever, a palpable mass and leukocytosis.⁶ Recognized causal associations and differential diagnosis include a history of appendicitis, diverticulitis, and inflammatory bowel disease, use of an intrauterine contraceptive device, neoplasm, intestinal tuberculosis and open or laparoscopic surgery.⁶⁻⁸ The definitive diagnosis of Actinomycosis requires microscopic proof of either the pathogen itself or the presence of specific "sulfur granules".^{6,7} Organisms can be identified by immunofluorescence.⁹

Milojkovi M et al showed a case of asymptomatic primary Actinomycosis of the greater omentum. That patient had history of intrauterine contraceptive device.¹⁰ Karagulle E et al reported a case of abdominal Actinomycosis. The patient had right lower quadrant abdominal pain mimicking acute appendicitis.¹¹

A combination of long term antibiotic therapy and adequate surgery is necessary to ensure the complete eradication of Actinomycosis because of the large amount of reactive fibrosis formed by the infection.¹² However, recent studies have shown that a combination of complete surgical resection followed by short term antibiotic treatment is effective therapy.⁸

CONCLUSION

Actinomycosis must be considered in the differential diagnosis of intestinal tuberculosis, amoeboma, chronic appendicitis, regional enteritis and colon carcinoma.

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