

■ Case Report

Actinomycosis of the ileocaecal junction

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Background

Actinomycosis is a rare entity. We encountered a case of actinomycosis of the ileocaecal junction which posed a diagnostic dilemma to us and the diagnosis could only be confirmed after the histopathological examination of the resected specimen was performed.

Introduction

Actinomycosis is a chronic suppurative granulomatous disease caused by *Actinomyces israelii*. This organism is universally distributed and is not very virulent. It normally colonises the upper respiratory tract, the gastrointestinal tract and the female genital tract. It becomes pathogenic and causes disease when the normal mucosal barrier is broken leading to multiple abscess formation, fistula or a mass lesion. We present this case of a mass in the right iliac fossa which mimicked malignancy clinically.

Case Report

A forty years old lady presented to us with a lump in the right lower abdomen since six months. The lump was progressively increasing in size with a rapid increase over the last one month. It was painless, she had no bowel or bladder complaints, no vomiting and fever. She did not have any loss of appetite or loss of weight.

On examination she was well preserved and her vitals were stable.

There was a 15x 10 cm² firm hard mass in the right iliac fossa extending onto the hypogastric region, and

reaching upto the right inguinal ligament inferiorly. The skin over the swelling was normal, no local rise of temperature, surface was nodular at few a places, non tender and fixed. Digital rectal examination was unremarkable.

On the basis of our clinical examination we had a very high suspicion of malignancy.

We performed the routine haematological and biochemical investigations which were within normal limits. Stool for occult blood was negative.

Ultrasonography: of the abdomen revealed an ill defined heterogeneously echogenic area composed mainly of thickened and clumped bowel loops with an inflamed and entrapped omentum and mesentery. The appendix could not be visualized separately and the possibility of an appendicular mass was suggested.

Contrast enhanced CT Scan: of the abdomen showed an inflammatory mass in the right iliac fossa with thickened caecum and terminal ileum and inflamed surrounding structures and loss of fat planes.

A fine needle aspiration cytology: revealed features suggestive of an inflammatory lesion.

We had a very strong suspicion of malignancy clinically, but none of the investigations were supportive so we performed an exploratory laparotomy on the patient.

Results

On exploration we found a mass of size 10 x 10 cm² involving the ileocaecal junction and the omentum, infiltrating onto the anterior abdominal wall (Fig 1 & 2). A diffuse mass was also felt in the adjacent anterior abdominal wall which contained thick cheesy

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pus. The tissue infiltrating the abdominal wall was hard and gritty.

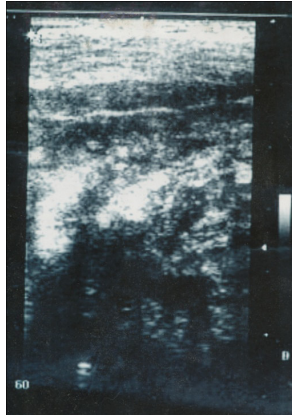


Fig. 1 Ultrasonography of the lump



Photo 4 Resected specimen of the Ileocaecal region

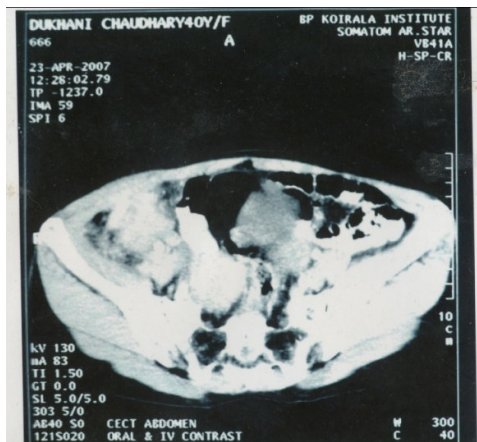


Fig. 2 CECT of the Abdomen



Fig. 5 Cut section of the resected specimen showing whitish irregular thickened areas

The mass was excised by performing a limited right hemicolectomy and an ileo – ascending anastomosis was made. A portion of the anterior abdominal wall was also taken for biopsy. The specimen was sent for histopathological examination (Fig 3, 4 & 5).

The patient tolerated the procedure well, was allowed orally on the fourth post operative day and discharged from the hospital on the fifth post operative day in a satisfactory condition.

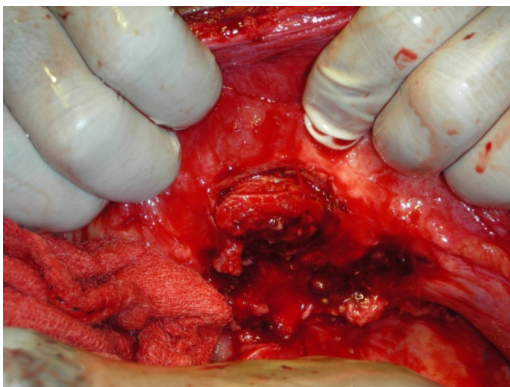


Fig. 3 Site of infiltration of the anterior abdominal wall

Histopathology Report

Gross – The resected segment of the Ileocaecal junction showed a thickened area with serosal breach measuring 7.5cm was identified 9 cm from the proximal resected margin.

Microscopic findings – Sections examined from thickened areas showed neutrophilic abscesses with bacterial granules showing Splendore Hoeppli Reaction and surrounding inflammatory granulation tissue and fibrosis (Fig. 6 & 7).

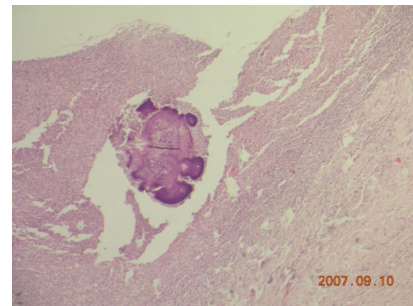


Fig. 6
 Neutrophilic abscess revealing granules with Splendor Hoeppli Reaction

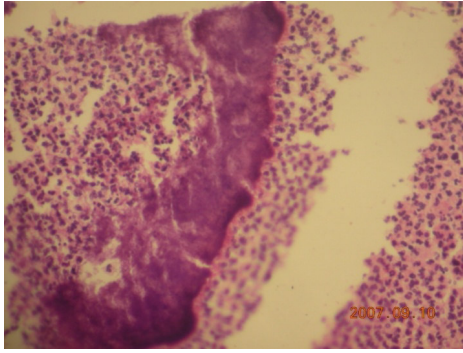


Fig. 7 Bacterial granules showing Splendor Hoeppli Reaction

Biopsy from the abdominal wall also showed chronic inflammatory granulation tissue.

The above features are suggestive of inflammatory disease due Actinomycosis.

Pus sent for culture was sterile. Pus sent for AFB staining was negative.

On the basis of the histopathology report the diagnosis of actinomycosis was made and the patient was put on oral penicillin for a period of twelve months and asked to come for regular follow ups

The patient is doing well and has been coming on regular follow up for the last four years.

Discussion

Human actinomycosis is most commonly caused by *Actinomyces israelii*, gram-positive, anaerobic filamentous bacteria.¹ There are three major clinical presentations: cervicofacial, abdominal and thoracic. Abdominal actinomycosis is the second commonest form of actinomycosis after the cervicofacial form and usually affects the ileocaecal junction, up to 70% in one series.² Other reported sites include the stomach, colon, hepatobiliary system and kidneys.¹ A rising incidence of pelvic actinomycosis has been reported due to the use of intrauterine contraceptive devices³.

Clinical presentation of abdominal actinomycosis is variable and may mimic other chronic diseases such as chronic granulomatous infections, malignant lesions and inflammatory bowel diseases. Although radiological examination is generally not useful, CT scan findings of an infiltrative mass in the abdomen with unusual aggressiveness and dense nonhomogenous contrast enhancement may suggest actinomycosis.⁴ Frequently, definitive diagnosis is only made after surgery and is based on culture of the organisms, or the presence of 'sulphur granules' in the specimen, or both.

In this case also we could not make a pre operative diagnosis and thought it to be a malignant tumour and hence proceeded to excise it and reached a final diagnosis only after the histology report was available. Actinomycosis can be eradicated by long term administration of penicillin. Surgical treatment is usually undertaken for unsuspecting cases, either presenting with abscesses or sinuses which required drainage, or abdominal masses which required extirpation surgery. Prognosis is excellent with correct antibiotic treatment but recurrence occurs if the duration of antibiotic cover is inadequate^{1,2,5}.

This lady was put on oral penicillin for twelve months and tolerated the drug well. She has been coming for regular follow up for the last four years and is doing well and no signs or symptoms of recurrence has been seen so far.

References

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