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General Surgery

A RARE AND INTERESTING CASE OF XANTHOGRANULOMATOUS APPENDICITIS

Dr Sandesh B Singh*	MBBS, DNB, MCH, Senior Resident*Corresponding Author
Dr Amogh Vaisham Payan	MBBS, DNB (Surgery), Assistant Professor
Dr Dnyanesh Belekar.	MBBS, MS, FCPS, DNB, MNAMS, FAIS, FMAS, FLCRS (Germany), Associate Professor and Head of Unit, Department of Surgery,K.J. Somaiya Medical College, Research Centre and Hospital, Sion, Mumbai-22.

ABSTRACT Xanthogranulomatous inflammation is a rare form of chronic inflammation which is characterized histologically by the presence of high number of foamy histiocytes with lymphocytes and plasma cells. It can involve any organ, but the most common sites are kidney and gallbladder. Due to the rarity of this condition, we report a case of xanthogranulomatous appendicitis in 35-year-old lady, who presented with acute pain abdomen, vomiting, fever and operated as a case of an acute appendicitis.

KEYWORDS : Xanthogranulomatous, Appendicitis.

INTRODUCTION:

Acute appendicitis is one of the most common surgical conditions. However xanthogranulomatous appendicitis is relatively uncommon. It is a rare type of chronic inflammation leading to tissue destruction and localized proliferation of lipid-laden macrophages. It is characterised by specific histological features with only a few reported cases. Here, we report a case of xanthogranulomatous appendicitis presenting as acute appendicitis which required an emergency appendicectomy.

Case History:

35 years old female presented to the surgical Out Patient Department with acute pain in the right iliac fossa since 3 days. Her condition started three days prior to presentation with vague lower abdominal pain. It was more pronounced on the right iliac fossa, mild to moderate, non radiating and was aggravated by coughing and straining. It increased gradually in severity and was associated with nausea, vomiting and fever. Her past history and family history were non relevant. Her general examination was normal. Her vitals were normal.

On evaluation, local abdominal examination revealed a scaphoid abdomen. There was guarding and rebound tenderness on deep palpation in the right iliac fossa. No other significant findings noted. Bowel sounds were normal. Per rectal examination was normal. Ultrasonogram of the abdomen and routine blood investigations were inconclusive.

She was clinically diagnosed as a case of acute appendicitis and an open appendectomy was performed. Per operatively the appendix appeared inflamed (figure 1). No gangrenous change or perforation was noted. Appendix measured 6 cms x 3 cms x 1 cm in size. The external surface appeared congested and dull. Cut surface of the specimen showed congested mucosa with few yellow colored areas. The lumen was patent. No faecolith or parasite was seen.

The Hematoxylin and Eosin (H&E) stained sections (figure 2) from the appendectomy specimen showed focal mucosal ulceration. Areas of the mucosa and sub mucosa were replaced by histiocytes with abundant granular eosinophilic cytoplasm along with some amounts of lymphocytes; plasma cells and eosinophils. There were a few occasional foreign body-type multinucleated giant cells. No acid-fast bacilli were seen on Ziehl Nelson staining. Based on H&E stains and other investigations, a diagnosis of xanthogranulomatous appendicitis was made. Postoperative period was uneventful and the patient was asymptomatic post operatively.

Discussion:

Xanthogranulomatous inflammation represents a chronic inflammatory process in which host and microorganism interact leading to tissue destruction and localized proliferation of macrophages which contain large amounts of lipid as the characteristic histological features of the disease.[1]

Xanthogranulomatous inflammation is a rare pathological condition. It had been reported in many organs, most frequently in the kidney2and gallbladder3. There have been few reports of its occurrence in the appendix[4].

Xanthogranulomatous inflammation of the appendix is rare. Microscopic examination of xanthogranulomatous inflammation usually reveals a nodular or diffuse collection of foamy histiocytes, intermixed with varying amounts of other inflammatory cells as well as fibrosis. Occasionally one can see cholesterol clefts, granulation tissue, and necrotic debris with reactive lymphoid hyperplasia. Greenson5 compared histopathology of interval appendectomy specimens within a 4-year period and compared them with a control group of patients who underwent routine acute appendectomy. They found that eight (36.4%) of the interval appendectomy cases had xanthogranulomatous inflammation compared with none in the acute appendicitis group ($P < 0.0001$).

The complications include abscess, perforation, post operativecaecal injury, post operative bleeding, and post operative fistulas.

Appendectomies either open or via laparoscopy is the treatment of choice. The overall prognosis if treated early is good.

To conclude, Xanthogranulomatous appendicitis is an uncommon variant of appendicitis that is rarely diagnosed preoperatively. The aim of presenting this case was to highlight the rarity of xanthogranulomatous inflammation of the appendix, presenting as an acute appendicitis in a 35 year old female.

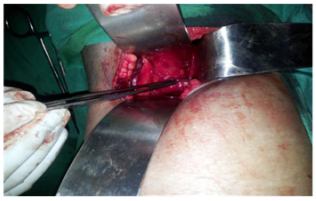

Figure 1: inflamed appendix

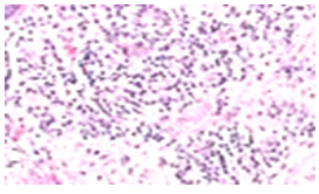

Figure 2: H and E

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