

Lipomatosis of Appendix Masquerading as Acute Appendicitis - A Case Report

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Abstract

Lipomatosis of the appendix is extremely unusual. It can be focal, diffuse and asymmetric. Radiological investigations such as CT abdomen and ultrasonography are usually used imaging modalities for diagnostic workups. However, histopathological examination is always the gold standard. A rare case of lipomatosis appendix was diagnosed based on a microscopic examination of a suspected acute appendicitis case in a 65-year-old female patient.

Keywords: Acute Appendicitis, Appendix, Lipomatosis.

Background

The appendix is considered a vestigial organ. Recent studies recognized that it plays a vital role in the regulation of the immune system [1]. Acute appendicitis is the leading cause of surgical emergencies worldwide and is a common diagnosis in pathology specimens [2]. Lipomatosis of the appendix is a very rare entity. Very few cases are reported in the literature. Lipomatosis of the appendix may mimic acute appendicitis [3].

Case Presentation

A 65-year-old female patient came with complaints of right-sided, diffuse, colicky type intermittent abdominal pain to the department of surgery, SBMCH. There was no history of fever, vomiting and diarrhoea. Physical examination of the abdomen revealed mild right lower quadrant tenderness. Laboratory investigations were within normal range. USG's abdomen showed a thickened appendix with

peri-appendiceal fat, likely suggestive of acute appendicitis. CT abdomen imaging showed discrete air foci in the wall of the caecum and peri appendicitis fat stranding with acute appendicitis. No other pathology was detected in the imaging.

A laparoscopic appendicectomy was performed. The specimen of the appendix was sent to the pathology department in 10 % formalin. Grossing was done as per standard guidelines. Length and greatest dimension were measured. Tip and base were identified. The cut surface and tip showed grey and yellow areas. Lumen was patent. There was no faecolith/neoplasm identified grossly. Multiple 4-5 µm paraffin sections were taken and stained with H&E. Detailed microscopic examination revealed submucosal infiltration of mature adipocytes. There was a sparse mononuclear inflammatory infiltrate noted in the muscularis propria. A final diagnosis of Acute appendicitis with submucosal lipomatosis was given.

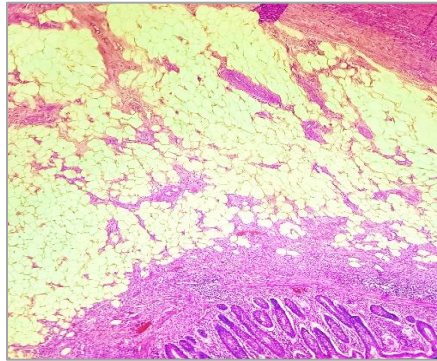


Figure 1. [(HE) X 10x] Appendix showing Infiltration of Mature Adipocytes in Submucosa

Discussion

Lipomatosis can be seen anywhere in the Gastrointestinal tract. Most commonly, these lesions are located in the colon, jejunum and ileum [4]. Submucosal lipomatosis of the colon has a prevalence of 0.2% [5]. Lipomatosis of the appendix is a rare entity [6]. Very few cases are reported in the literature. Patients can present with symptoms of acute appendicitis. Microscopically, we will see mature adipocytes in the submucosa [7,8]. In this case, the patient presented with symptoms of acute appendicitis, but a microscopic examination revealed

submucosal lipomatosis of the appendix with sparse inflammation.

Conclusion

Lipomatosis of the appendix is a rare entity. It is an unusual histopathological finding encountered in appendectomy specimens. The majority of cases are asymptomatic. Very few cases can present with symptoms of acute abdomen. The histopathological investigation is always the gold standard for diagnosing this entity.

Submucosal lipomatosis of the appendix is extremely rare. The pathogenesis is not known. However, definitive examination.

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