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ORIGINAL ARTICLE

Stump Appendicitis: A Bane or Boon of Laparoscopic Appendectomy

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ABSTRACT

Appendiceal stump appendicitis is a very rare surgical event, though acute appendicitis is still the most common cause of abdominal surgeries worldwide. The incidence of appendiceal stump appendicitis is on a gradual rise possibly due to laparoscopic surgeries. In this study, we report a 54-year-old woman with preoperatively diagnosed stump appendicitis by ultrasound who underwent a laparoscopic appendectomy 8 years ago.

Keywords: Appendiceal stump appendicitis, Laparoscopic appendectomy.

INTRODUCTION

Acute appendicitis is still the most common cause of abdominal surgeries worldwide. Even though the clinical features of stump appendicitis do not differ from those of acute appendicitis, the diagnosis is often not considered due to prior surgical history.

This paper reports a patient with preoperatively diagnosed stump appendicitis by ultrasound who had undergone a laparoscopic appendectomy 8 years ago.

CASE REPORT

A 54-year-old woman was admitted with diffuse abdominal pain, nausea and vomiting since 2 days. There was no relevant medical history except a laparoscopic appendectomy performed 8 years ago. On physical examination, she had temperature of 39ºC (axillary), blood pressure 110/70 mm Hg and pulse rate of 100/minute. Her abdomen was tender and there was a rebound tenderness and guarding in right iliac fossa.

Routine labortary tests, such as total count was 15,500 with majority of polymorphonuclear leukocytes (PMN) (73%).

Examination of previous operation records confirmed laparoscopic removal of suppurative appendicitis. Abdominal ultrasound revealed small amount of fluid in right iliac fossa and increased thickness (8 mm) of the residual cecal appendix. A preoperative diagnosis of stump appendicitis was made.

Patient was posted for laparotomy procedure. Peroperative findings were cecal edema, and multiple adhesions between omentum and cecum. Further exploration revealed inflammed remnant appendiceal stump measuring around 4 cm (Figs 1 and 2). Stump appendectomy was done. Abdomen was closed in layers. Histopathological examination confirmed stump appendicitis.

DISCUSSION

Stump appendicitis is a rare clinicopathological entity characterized by inflammation of appendiceal remnant after incomplete appendectomy. This clinical condition should be considered in differential diagnosis of acute abdominal pain and surgery should not be delayed.

Following the first case reported by Rose in 1945, around 36 cases have been reported in worldwide medical literature. Majority of the patients fall within 11 to 72 years. Clinical presentation of stump appendicitis may be acute or subacute and can occur as early as 2 months to 50 years after initial appendectomy. Appendiceal stump lengths are reported to range from 0.5 to 5.1 cm. Leaving a stump less than 3 mm long in the original surgery may prevent stump appendicitis. In our case, the length of the appendiceal stump

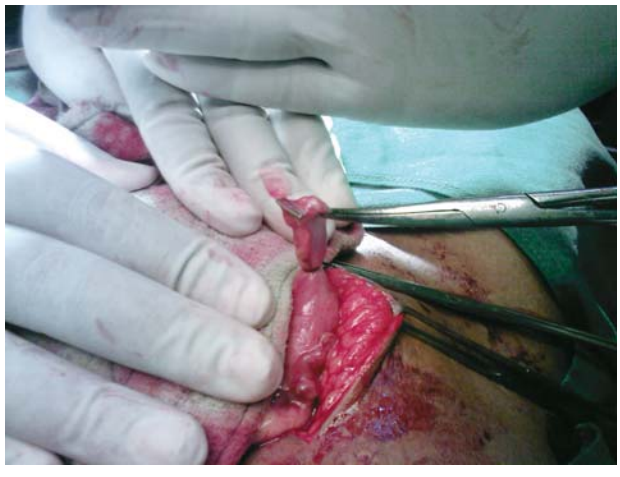

Fig. 1: Inflammed remnant appendiceal stump

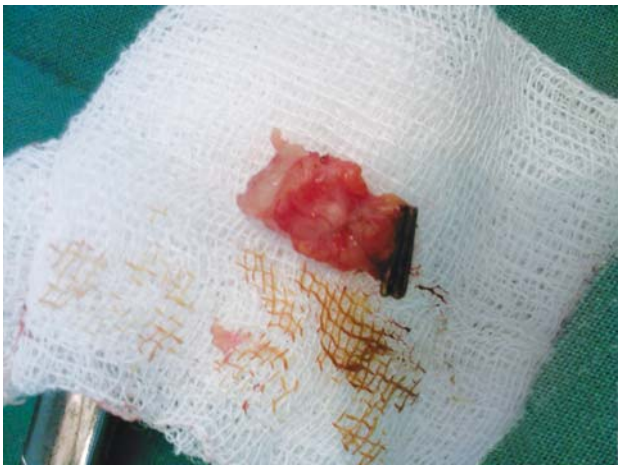

Fig. 2: Appendectomy specimen

was 40 mm. CT scan and ultrasonography findings may not be specific for stump appendicitis. Associated changes, like pericecal inflammatory changes, cecal wall thickening, abscess formation and fluid in the right paracolic gutter may be seen.

Preoperative CT scan is a more effective technique to aid diagnosis. The incidence of stump appendicitis is increased possibly due to usage of laparoscopic surgical techniques.

Prior history of appendectomy cannot rule out possibility of appendicitis. This dilemma may sometimes delay in diagnosis and treatment. Therefore, a high index of suspicion is required for diagnosis.

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