

CASE REPORT

Laparoscopic Management of Stump Appendicitis

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ABSTRACT

Stump appendicitis is a rare complication reported both after laparoscopic and open appendectomy. Diagnosis of the condition is usually delayed because of previous history of appendectomy and adequate clinical vigilance on part of treating surgeon is required. It results from incomplete appendectomy. Stump appendicitis is inflammation of residual appendix after appendectomy and has reported incidence of 1 in 50,000. We report a case of 20-year-old male who underwent open appendectomy 7 years back and now presented with features of abdominal wall abscess. The patient was diagnosed with stump appendicitis and laparoscopic completion appendectomy was done.

Keywords: Completion appendectomy, Incomplete appendectomy, Stump appendicitis.

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INTRODUCTION

Stump appendicitis is inflammation of residual appendix after appendectomy and has reported incidence of 1 in 50,000. Stump appendicitis is a rare and underreported entity, and a thorough review of literature revealed 87 cases reported till now.¹ Stump appendicitis needs to be diagnosed urgently because of increased incidence of complications like perforation, abscess, and sepsis associated with the condition.

CASE REPORT

A 20-year-old male admitted with the complaint of pain in right iliac fossa with swelling and redness since 1 week associated with low-grade fever, no chills. The patient was diagnosed with abdominal wall abscess and was managed with antibiotics at some hospital. After no resolution of symptoms, the patient was referred to our hospital for further management. The patient had

a history of open appendectomy 7 years back and was symptom-free until last week. On physical examination vitals were stable, McBurney scar was visible, and 2×3 cm inflammation and tender swelling was visible lateral to scar with positive fluctuation and no mass palpable. Labs showed Hb of 12.5 gm%, total leukocyte count 12,610, platelet 3.28 lac, and electrolytes were normal. Contrast-enhance computed tomography (CT) of abdomen revealed stump appendicitis with 14×13 mm appendicolith at the tip of appendix with localized collection of 63×28 mm and external subcutaneous tracking of collection.

The patient was planned for laparoscopic completion appendectomy with abscess drainage. Operative findings revealed that right colon and terminal ileum was adhered to parieties and appendix stump of approximately 3 cm was seen with faecolith at the tip adhered to right flank along with pus in anterior abdominal wall. Blue stapler of 60 mm was fired at the base of appendix, pus was drained out laparoscopically, followed by small skin incision at an external point to break loculi; internal defect was closed. Postoperatively, the patient improved symptomatically and was discharged under satisfactory condition.

DISCUSSION

Appendectomy is one of the common surgeries performed in emergency scenario worldwide. Claudius Amyand performed first appendectomy in the year 1735, but Rose (1945) first reported stump appendicitis as an entity in two patients who had undergone previous surgery.² Various risk factors as described in the literature that include a stump longer than 5 mm, severe inflammation, location of appendix (retrocecal/subcecal), and surgeon's inexperience.³⁻⁷ In various reports, it has been shown that incidence is following more laparoscopic procedure as compared to open due to lack of tactile feedback and limited view leading to long stump left behind in cases with inflammation.⁴ It is recommended to verify the base of appendix for residual length which should be kept below 3 mm.

Apart from stump appendicitis, another identity called "duplicated appendix" can confuse the surgeon. This has been reported in the literature at a frequency of 0.004%. Three types of duplicated appendix have been described by Wallbridge: (1) Type A, incomplete duplication with both appendices having common base; (2) one of type B appendix is at usual location and another one anywhere along the colon, and (3) type C, complete

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duplication of cecum with two appendices.⁸ Radiological investigation using either ultrasonography (USG) or CT is performed for the diagnosis of stump appendicitis, CT being more specific in ruling out other causes of abdominal pain.

Completion appendectomy as surgical treatment, either open or laparoscopic, is the treatment of choice. Most of the cases reported in the literature had been done as open procedure, but as experience with laparoscopy is increasing along with added advantage of thorough inspection of the peritoneal cavity, we recommend laparoscopic approach with low threshold for conversion.

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