Stump appendicitis with lipohyperplasia of the ileocecal valve: Report of a case

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ABSTRACT
A case report of recurrent appendicitis, 40 years after appendectomy is presented. In the present case, we failed to diagnose stump appendicitis preoperatively due to the existence of the lipohyperplasia of the ileocecal valve which showed features of ileocolic intussusception causing right lower abdominal pain and nausea. Inflammation of the appendiceal stump after appendectomy is a rare complication, but in the assessment of patients with lower quadrant abdominal pain who have previously undergone appendectomies, stump appendicitis should be considered.

KEY WORDS
Stump appendicitis, Lipohyperplasia, Ileocecal valve.

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INTRODUCTION

The diagnosis of stump appendicitis in patients who have previously undergone appendectomies is very difficult because of the low incidence and other diseases with a similar clinical presentation. We herein report a case of stump appendicitis we failed to diagnose preoperatively owing to the existence of lipohyperplasia of the ileocecal valve which showed features of ileocolic intussusception.

CASE REPORT

A 49-year-old man presented to the hospital on February 27, 2003 for investigation of a right lower abdominal pain and nausea that had persisted for two days. He had a past history of appendectomy 40 years prior to admission. On physical examination, a soft mass with tenderness located in the lower quadrant of the abdomen was found. Blood examination showed leukocytosis (white blood cell count 11,600/mm^3). The C reactive protein (CRP) level was elevated (4.7 mg/dl). Computed tomography (CT) and ultrasonography of the abdomen showed an intraluminal mass with a characteristic layered appearance called a target sign of the ascending colon (Figure 1). An ileocolic intussusception was highly suspected, and laparotomy was performed on May 27, 2003. At surgery, the terminal ileum and cecum were edematous and covered with fibrous adhesive granulation tissue and the appendiceal stump could not be identified. An intraluminal mass was found in the ascending colon, but an intussusception did not exist. Ileocecal resection with the excision of the granulation tissue was carried

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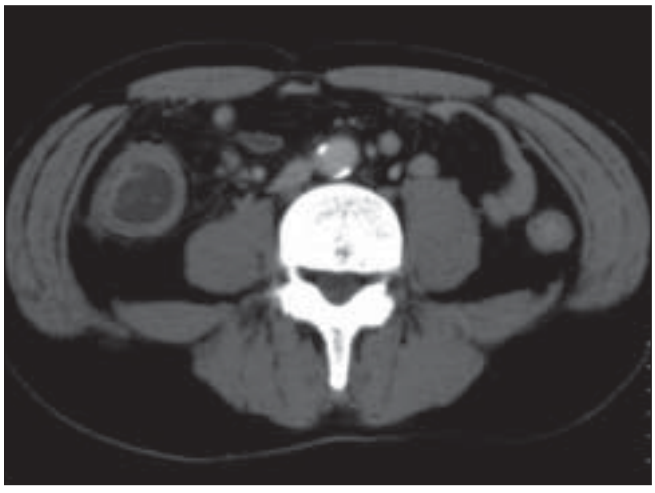

Figure 1: Computed tomography (CT) scan of the abdomen shows an intraluminal mass with a characteristic layered appearance called a target sign of the ascending colon

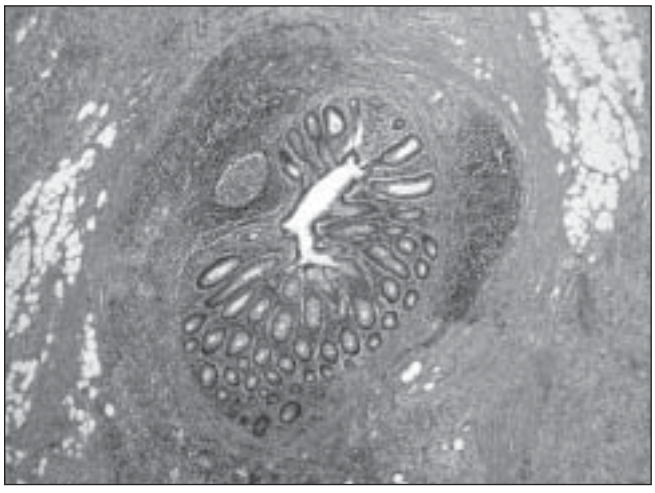

Figure 2: Pathology of the granulation tissue shows the structure of the appendix surrounded by neutrophils infiltration and increased fibrous tissue (H/E, ×40)

out. An end-to-side anastomosis between the terminal ileum and the colon was performed. The resected specimen showed a granulation tissue around the cecum and an enlarged ileocecal valve (6.5 x 2.5 cm). Histopathological examination of the specimen excised from the granulation tissue showed the structure of the appendix surrounded by neutrophils infiltration and increased fibrous tissue (Figure 2). Histopathological examination of the specimen excised from the ilieocecal valve demonstrated excessive fatty deposition in the submucosa.

The postoperative course was uneventful, and he was discharged 22 days postoperatively.

DISCUSSION

Inflammation of the appendiceal stump after appendectomy is a rare complication that may occur after incomplete removal of the appendix, leaving a long stump. Rose[1] first reported this complication in 1945. There are only sporadic case reports in the literature[2,3] and the true incidence and prevalence of stump appendicitis are not known. This is a rare and uncommon entity and should not be considered first in the differential diagnosis of right iliac fossa pain in patients who has previously undergone appendectomy.

The interval before relapse of an inflammatory process in an appendiceal stump after appendectomy can range from weeks up to 52 years.[4,5] In our case, appendectomy was performed 40 years previously.

The most important change in the management of acute appendicitis has been the introduction of laparoscopic appendectomy. Some authors reported stump appendicitis after laparoscopic appendectomy.[6] A recognized, long appendiceal stump following laparoscopic appendectomy may be at risk for recurrent appendicitis. As this procedure becomes more common, recurrent appendicitis may be more frequently reported if surgeons do not adequately dissect the base of the appendix.

Regarding the diagnosis, Nahon et al[4] reported that radiological imaging should be the primary means of establishing a diagnosis of stump appendicitis. A distended appendiceal stump, ileocecal mass, pericecal fat infiltration, and pelvic abscess are included in the suggestive radiological findings on CT.[4] However, an accurate preoperative diagnosis is difficult to establish. In most cases, the diagnosis is determined during diagnostic laparotomy.

In the present case, we failed to diagnose stump appendicitis preoperatively. This was due to the existence of lipohyperplasia of the ileocecal valve which showed features of ileocolic intussusception on abdominal CT and ultrasonography. Lipohyperplasia of the ileocecal valve is reportedly a rarely diagnosed lesion of uncertain significance characterized by diffuse infiltration of fatty tissue in the submucosal layer of the ileocecal valve.[7] Lipohyperplasia of the ileocecal valve produces thickening and outpouching of the valve into the cecum which causes a narrowing of the lumen. Most cases of lipohyperplasia of the

ileocecal valve are asymptomatic. Some cases, however, are symptomatic with various combinations of abdominal pain, nausea, vomiting, diarrhoea, constipation and bleeding, called ileocecal valve syndrome. Regarding the diagnosis, CT may help to confirm the presence of adipose tissue in a patient with fatty infiltration of the ileocecal valve.8

In conclusion, we reported a patient with stump appendicitis complicated by lipohyperplasia of the ileocecal valve which showed features of ileocolic intussusception. Stump appendicitis is not routinely suspected in patients who have previously undergone appendectomies. However, in the assessment of the patients with lower quadrant abdominal pain, stump appendicitis should be considered, especially when laparoscopic appendectomy has been performed.

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