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# Transverse Colon Diverticulitis: An Uncommon Cause of a Surgical Acute Abdomen

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### ABSTRACT

Diverticula are small mucosal herniations protruding through the intestinal layers and smooth muscle along the natural openings created by the vasa recta or nutrient vessels in the wall of the colon. Diverticulitis of the transverse colon is a rare disorder which is often confused with other conditions and presents a challenge in diagnosis. We, here, report a case of transverse colon diverticulitis with mesocolic abscess treated surgically. This report increases awareness of this unusual condition.

**KEYWORDS:** *Diverticulitis, segmental resection, transverse colon*

## INTRODUCTION

Diverticulitis of the transverse colon without involving the rest of the colon is a rare disorder and is often confused with other conditions. Although sigmoid colon diverticulitis is frequently seen, right colon and transverse colon diverticulitis remain rare forms of the disease.

## CASE REPORT

A 45-year-old male presented to the hospital with complaints of pain in the right lower abdomen for 4 days. The pain was continuous and aggravated on movements, and on taking deep breaths. He had no bowel or bladder disturbances. He had similar episodes of pain 1 month back and was evaluated with ultrasound abdomen which revealed an inflammatory mass in the right lumbar region secondary to diverticulitis/appendicular. He improved with conservative treatment.

Computed tomography abdomen and pelvis this time showed a similar inflammatory mass [Figure 1]. He was treated for appendicular mass with intravenous (IV) antibiotics elsewhere prior to admission in our hospital. On examination, he had tenderness in the right lumbar region and a vague mass was palpable. He was continued on IV fluids and IV antibiotics, but the pain persisted and hence diagnostic laparoscopy was planned. At laparoscopy, there was a firm mass in the mesentery of the transverse colon attached to the transverse colon and adherent to the anterior abdominal wall with pus

inside. Laparotomy and segmental resection of the transverse colon along with the mass with an end-to-end anastomosis were performed. The resected specimen measured around 10 cm × 13 cm × 3 cm. The transverse colonic loop showed diverticulitis, and the mesentery showed multiple areas of necrosis and pus formation. Sections of the mesenteric lesion revealed large abscess, and sections of the colon revealed diverticulitis.

The patient improved with surgical intervention and was discharged within a week of the surgery.

## DISCUSSION

Diverticulitis is a complication of diverticulosis and appears to be associated with a low-fiber diet, constipation, and obesity. It can occur anywhere in the gastrointestinal tract but is usually observed in the colon. The sigmoid colon, where colonic intraluminal pressures are greatest, is most commonly affected by this disorder. Diverticulitis of the transverse colon is a rare disorder and is often confused with other conditions like acute appendicitis prior to operation and with carcinoma of the colon during the procedure. In few cases where diagnosis was accurate, patients were successfully managed with a nonsurgical approach.<sup>[1]</sup>

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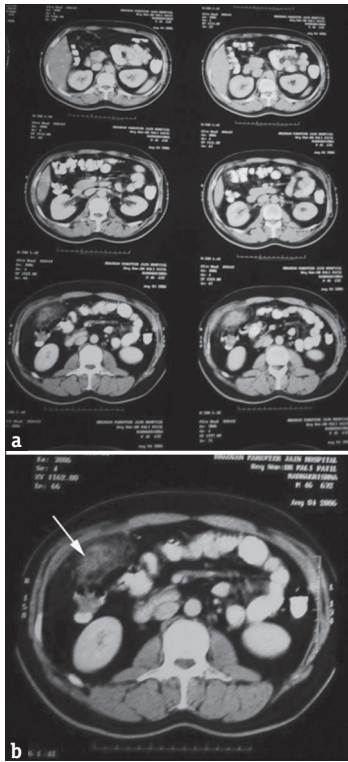
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**Figure 1:** (a) CT scan image showing an inflammatory mass localised to the right colon with fat stranding (b) Detailed image of CT

Transverse colon diverticulitis was first reported by Thompson and Cox in 1944 in a 35-year-old male.<sup>[2]</sup> Later, in 1949, Lockhart Mummery described a case in a 48-year-old female, which was associated with diverticulitis of the cecum and duodenum.<sup>[3]</sup> Few other cases, for instance, the one by Rowlands came in 1951 which described a solitary diverticulum in a 54-year-old female<sup>[4]</sup> and a recent report of a 46-year-old female who developed sigmoid colon diverticulitis and then transverse colon diverticulitis, have also been reported.<sup>[5]</sup> A case of coexistent cancer and diverticulitis of the transverse colon has also been added to the list.<sup>[6]</sup>

The transverse colon is not a typical site for diverticulitis and its etiology remains unclear. Correct preoperative diagnosis has seldom been achieved, with the most common incorrect diagnosis being acute appendicitis followed by acute cholecystitis,

acute pyelonephritis, perforated colonic carcinoma, colitis, infarcted appendix epiploica, inflamed retained appendiceal stump, and psoas abscess. The treatment of choice is segmental resection of the transverse colon together with end-to-end anastomosis, except in the occasional instance of a large intra-abdominal abscess, when anastomosis may be deferred.<sup>[7]</sup> Awareness of this condition can avoid radical bowel resections being performed under unsuitable conditions.

#### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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#### Conflicts of interest

There are no conflicts of interest.

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