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Abstract  Background: Pure, benign epidermoid cysts of the abdominal viscera are rare. There have been only four reports of epidermoid cysts of the cecum in the literature, two following appendectomies and attributed to the surgical procedure, and two in female patients, raising the possibility of dermoid cysts related to the ovaries. Patients and methods: We report the first case of epidermoid cyst of the cecum in an elderly man with no previous history of trauma or surgery, detected by computed tomography as an incidental finding of extraluminal cystic cecal mass. It was treated by partial colectomy. Pathologically the cyst was roughly spherical, extending from and expanding the serosal surface of the cecum with no communication through the muscularis wall. Histologically the inner lining of the cyst was composed of benign, mature, keratinized, stratified squamous epithelium with a well formed granular layer. No calcification, hair, teeth, or bone elements was detected. Results: The interesting finding in our case is the unusual anatomical location and the age and sex of the patient. The patient had no history of any abdominal surgical procedures. The most likely explanation for the presence and development of an epidermoid cyst in this location is the result of an aberrant ectodermal implantation during embryogenesis. Conclusion: Awareness of the possibility of the presence of epidermoid cysts in this area with distinctive radiological findings consistent with a well circumscribed benign cyst should be considered in the differential diagnosis of cysts within the abdomen.

Keywords  Epidermoid cyst · Cecum · Colon

Introduction

Pure, benign epidermoid cysts of the abdominal viscera are rare. They have been reported in internal organs in the epididymis, testis, spleen, accessory spleen, and liver. To our knowledge there has been only four reports of epidermoid cysts of the cecum in the literature. Two cases were seen following appendectomies and were attributed to the surgical procedure, and another two cases were described in female patients 8 and 27 years of age, hence raising the possibility of dermoid cysts related to the ovaries.

We report the first case of epidermoid cyst of the cecum in an elderly man with no previous history of trauma or surgery. It was detected as an incidental finding by computed tomography (CT) and was treated by partial colectomy.

Case report

A 67-year-old man presented to the primary care clinic with a 3-month history of intermittent nausea, vomiting, and abdominal pain. He was referred to the gastroenterologist for work-up that included a CT of the abdomen and a barium enema. The CT find-
ings and initial work-up were consistent with cholelithiasis. An incidental finding on CT was an extraluminal, well circumscribed cystic lesion, extrinsic to and slightly compressing the cecum. It measured 4.0×5.5 cm and contained homogeneous material of increased attenuation. No calcification or fluid level was seen. It was thought to represent a duplication cyst (Fig. 1). CT also showed probable gallstones and a thick-walled sigmoid colon with diverticulae. Barium enema and colonoscopy failed to show any mucosal abnormalities of the colon; however, extraluminal compression was seen at the cecum.

The patient was taken to the operating room for exploratory laparotomy and possible colonic resection. At surgery a mass was identified in the right lower quadrant of the abdomen and measured approximately 5×6 cm, no abnormalities were detected on the peritoneal surface or in the small bowel. The right colon, terminal ileum and vermiform appendix were dissected from the retroperitoneum and removed. Pathological gross examination revealed a resected right colon including the cecum and ascending colon with attached segment of distal ileum, and an intact vermiform appendix. Just adjacent to the appendix and the distal ileum

**Fig. 1** Computed tomography of the lower abdomen, revealing a well circumscribed cystic mass with smooth wall and containing heterogeneous material of increased attenuation. The cyst is attached and medial to the wall of the cecum.

**Fig. 2** Gross photography of the surgical pathology specimen of resected right colon, terminal ileum, and appendix. Note the bisected cyst located on the outer surface of the cecum. The cyst contains friable yellow-gray keratin.

**Fig. 3 a** Microscopic picture of the cyst wall showing the full-thickness normal cecal wall and the cyst within the muscularis propria. H&E, ×10.

**b** Note the normal colonic mucosa on one side. H&E, ×100.

**c** The cyst wall is composed of benign, keratinizing, stratified squamous epithelium with well formed granular layer and abundant keratin. H&E, ×100.