Case Report

The patient was a 44-year-old man who was previously fit and well until a 2-day period of abdominal pain localized in the right lower quadrant (RLQ). He experienced no anorexia, vomiting or change of bowel habit. Physical examination revealed a marked tenderness with guarding over McBurney’s point. A mass was also palpable. Laboratory reports showed an elevated white blood cell count of 11,220/mm³; other results were all within normal limits. Abdominal computed tomography (CT) showed a huge cyst adjacent to the swollen appendix (Figure 1). Appendicitis with abscess formation was suspected. The patient underwent emergency laparotomy and the appendix appeared to be normal intraoperatively. However, a 7 × 5 cm mass was found adjacent and adherent to the transverse colon, near the appendix (Figure 2A). Due to difficulty in dissecting and separating the mass from the transverse colon, right hemicolectomy, including total excision of the mass, was performed. The cyst was opened after resection and some clear, straw-colored liquid drained out.

Postoperatively, the patient had an uneventful course and was discharged on the 8th postoperative day. Pathologic examination revealed a true cyst walled by a proteinaceous and fibrinoexudative substance. It was connected to the inflamed and fibrinoexudative coating of the colonic wall.
Focal sloughing of the mucosal epithelium was also noted (Figure 3).

**Discussion**

Cystic lesions of the omentum are uncommon and seldom diagnosed preoperatively, and cysts of the omentum in the transverse colon with right quadrant pain are very rarely reported. Due to the redundancy of the transverse colon, the RLQ pain that our patient experienced mimicked the typical symptoms of acute appendicitis. Although radiologic studies, particularly sonography, CT and magnetic resonance imaging, may play a predominant role in the diagnosis of this disease, the patient underwent an operation based on the impression of acute appendicitis with abscess formation. Due to the rarity of infected omental cysts adjacent to the transverse colon located in the RLQ of the abdomen and due to the operator’s misinterpretation of the abdominal CT scan, acute appendicitis with abscess formation was suspected preoperatively.

During the operation, a huge cyst was found after resection of the normal appendix. Under the

---

**Figure 1.** Computed tomography shows: (A) a cyst-like mass with pus formation found near the cecum preoperatively (black arrow); (B) a well-outlined appendix (white arrow) just next to a cystic lesion. During operation, the appendix was found to be normal.

**Figure 2.** (A) A 7 × 5 cm mass was found adjacent and adherent to the transverse colon which was near the appendix. (B) A clear and straw-colored liquid was drained out after opening the cyst.
tentative impression of benign status, we extended the wound and extracted the cyst. Segmental resection was performed in consideration of possibly compromising the blood supply of the transverse colon due to marked adherence. The cyst was opened after resection and some clear, straw-colored liquid drained out. Several different methods to treat the cyst have been proposed. Enucleation is one option, and because by definition these cysts are not connected to any normal structure except for loose areolar tissue, there should be no difficulty in enucleating and completely removing the cyst. With successful enucleation, recurrence is extremely rare. However, if the cyst is located too close to the bowel or if dissection of the cyst may compromise the blood supply of the bowel, then resection of the cyst and adjacent bowel may be more feasible.1 Despite undergoing the relatively extended surgery due to severe adherence, our patient was discharged uneventfully and has recovered, free of abdominal discomfort.

Omental cysts are usually single, but they may be multiple. The omental cyst is a thin-walled cystic structure in the omentum that is usually filled with fluid. The fluid may vary from a clear, straw-colored liquid (Figure 2B) to a thick, cheesy white substance,3 and that may be the way to differentiate origination from the omental cyst, rather than from colon disease. The clinical presentation varies. They may be small and remain unnoticed, or they may present as a large palpable mass. In the report by Fitoz et al, a giant torsion of a omental cyst mimicking ascites was described.4 Omental cysts are more common in females (~82%) than in males,5 with the most common presenting symptoms being abdominal distension, pain, vomiting and pain combined with distension. The typical symptoms and signs of acute appendicitis, such as nausea and shifting pain, may not occur in the inflammatory omental cyst. In our case, no typical gastrointestinal upsets were noted except for abdominal palpating pain. Furthermore, the location of the cyst in the RLQ was also uncommon. These nonspecific findings resulted in the operator’s misinterpretation of acute appendicitis prior to celiotomy. Despite the fact that cysts of the omentum have been reported rarely, the operator should be aware that the cyst is a benign entity and the surgical strategy should be different from that for malignancy. When there is uncertainty, an intraoperative frozen section of the incised specimen may assist in the differential diagnosis, thereby avoiding unnecessary bowel resection. We should keep the possibility of omental cyst in mind to avoid unnecessary bowel resection and potentially harmful inappropriate treatment.

References