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SCIENTIFIC LETTER

Colonic duplication cyst in adult☆

Duplicación quística de colon en adulto

Duplications of the gastrointestinal tract are rare congenital abnormalities which can affect any part of the tract, with an incidence of approximately one in 4,500 individuals.[1] The wall of the duplication usually has all the layers of the normal gastrointestinal tract with a mucosa lined by epithelium of the adjacent normal segment or from another part.[2] They may or may not be connected with the normal intestine and can be of any size and shape, but approximately 80% are cystic and the remainder tubular. Although some patients may remain asymptomatic, the vast majority are diagnosed before the age of two, and diagnosis in adults is rare.[2]

We present the case of a 47-year-old patient who had an abdominal ultrasound for recurrent urinary tract infections which by chance found a non-specific mesenteric mass. Investigations were completed with abdominal computed tomography (CT) scan which showed a cystic mass measuring approximately 7 cm, dependent on the mesentery, with homogeneous density and smooth borders, which was not distorting or retracting intestinal loops, being separate from the intestinal wall (Fig. 1). The patient had no gastrointestinal symptoms. After presenting the case at the Tumour Committee, an exploratory laparotomy was performed, in which the lesion was located in the transverse mesocolon, completely separate from the gastrointestinal tract, macroscopically giving the impression of a colonic duplication cyst (Fig. 2). The specimen was sent for pathology tests, which confirmed the diagnosis, with no signs of dysplasia or ectopic gastric mucosa. The postoperative period was satisfactory, with the patient being discharged after three days.

Duplication cysts can originate in any part of the gastrointestinal tract, with the ileum being the most common site[1,2] followed by the jejunum and the duodenum. The colon is the least common location,[1–3] with fewer than 100 published cases. McPherson et al.[4] classified colon duplications into three types: type I or simple cyst; type II or diverticulum; and type III or tubular duplication. There are several theories about the formation of these duplications, such as split notochord syndrome, persistence of embryonic diverticula, recanalisation defects or intrauterine alterations due to trauma or hypoxia.[2,5] They can also be associated with other abnormalities of the urinary, genital or vertebral tracts.[1]

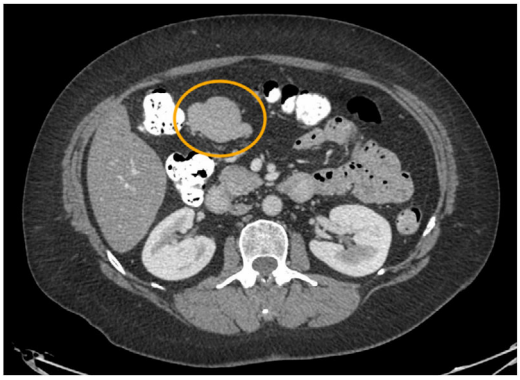

Figure 1 Abdominal CT scan showing cystic mass measuring approximately 7 cm.

Clinically they can cause a wide variety of symptoms, depending on their location, size and type of mucosa, although most are asymptomatic, as in our case. The most common clinical manifestation is abdominal pain, probably due to distension of the cyst or compression of adjacent organs. Gastric mucosa is present in around 50%, which explains gastrointestinal bleeding as a symptom due to ulceration of the ectopic gastric mucosa. Malignant degeneration of duplication cysts is rare, but mostly occurs in cases located in the colon, with adenocarcinoma being the most common histological type.[1,3]

Diagnosis in adults is rare and is usually an incidental finding, often during a surgical intervention due to a related complication, such as volvulus or perforation. Clinical diagnosis is difficult, but duplication cysts can be identified with various imaging tests. A plain X-ray of the abdomen may show a duplicated distension of the colon with the presence of an air-fluid level. However, as with ultrasound, X-rays usually provide limited information.[5] Colonoscopy and barium enema can be useful in cases where there is communication with the intestinal lumen, although with the barium enema we may also observe a displacement or compression effect caused by the mass. If a colonoscopy is performed, extreme caution must be exercised due to the risk of perforation. An abdominal CT scan is the most appropriate

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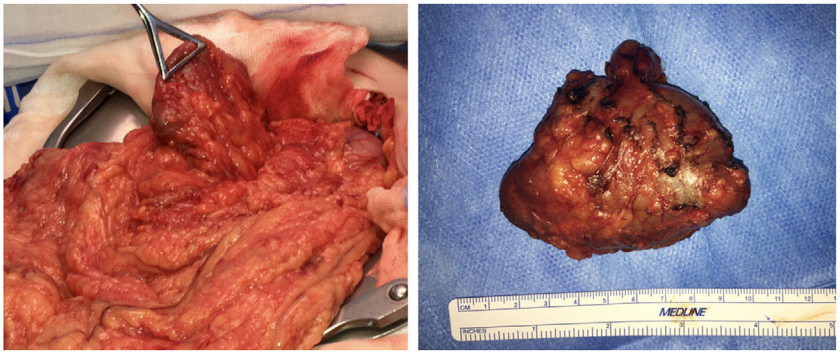

Figure 2 Intraoperative finding and surgical specimen from the lesion located in the omental bursa.

test for diagnosis, usually showing a rounded cystic mass with fluid content or thin-walled tubular structures.[2,5] The recommended treatment is resection, preserving the vascularisation of the adjacent colon, both in symptomatic and asymptomatic patients, due to the risk of malignancy and to avoid future complications.[2,3]

In conclusion, colon duplication cysts are a rare disorder, usually diagnosed in childhood, with non-specific symptoms. Diagnosis can be complicated in routine practice due to their low incidence, especially in adults, although the possibility should be considered in the differential diagnosis of a cystic abdominal mass, particularly if associated with gastrointestinal symptoms.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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Pablo Rodríguez García*, Ainhoa Sánchez Pérez, Elena Romera Barba, Purificación Calero García, Rafael González-Costea Martínez

Servicio de Cirugía General y del Aparato Digestivo, Hospital General Universitario Santa Lucía, Cartagena, Spain

*Corresponding author.
E-mail address: pablorg924@gmail.com
(P. Rodríguez García).