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Letters to the Editor

Pneumatosis cystoides intestinalis. Uncommon cause of pneumoperitoneum

Key words: Pneumoperitoneum. Pneumatosis cystoides intestinalis.

Dear Editor,

Pneumoperitoneum due to pneumatosis cystoides intestinalis is a rare pathology with unknown origin (1-3), defined as the appearance of gas-filled cysts in the intestinal wall (3) and it can occur as a primary or secondary disease. Most of the patients are asymptomatic or show non-specific symptoms. The diagnosis is often made through radiology.

The treatment can range from conservative to laparotomy. Asymptomatic patients do not need a specific treatment (2-5). When pneumoperitoneum occurs, we should evaluate if there are peritoneal irritation signs or analytical changes to justify laparotomy (1,3,4,6).

In this article, we report the case of an 84-years-old male patient, who goes to emergency room due to non-specific abdominal pain, finding pneumoperitoneum developed by pneumatosis cystoides intestinalis. It was treated in a minimally invasive way, showing a successful evolution.

Case report

A diabetic and hypertensive 84-years-old male goes to emergency room due to abdominal pain which does not improve with analgesia, dyspnea and light nauseas. After the physical exam, he presents a good condition, HR 88 bpm, BP 146/82 mm Hg, SaO_2 91 %, soft and tympanic abdomen, slight discomfort when palpating but without pain or signs of peritoneal irritation.

An abdominal scan is taken and pneumoperitoneum and pneumatosis cystoides intestinalis images are found (Fig. 1). In this case we chose to follow a minimally invasive treatment due to the mildness of the case. We released the pneumoperitoneum that caused the symptoms with Abbocath, having a successful evolution in 24-48 hours and solving the case with a total recovery, remaining under supervision.

Discussion

Pneumatosis cyistoides intestinalis is classified as primary disease (15 %) of unknown cause and secondary (85 %) associated to gastrointestinal diseases, as intestinal obstruction (1), cystic fibrosis, peptic ulcer, diverticula, Crohn›s disease, ulcerative colitis, mesenteric infarction, chronic intestinal pseudo-

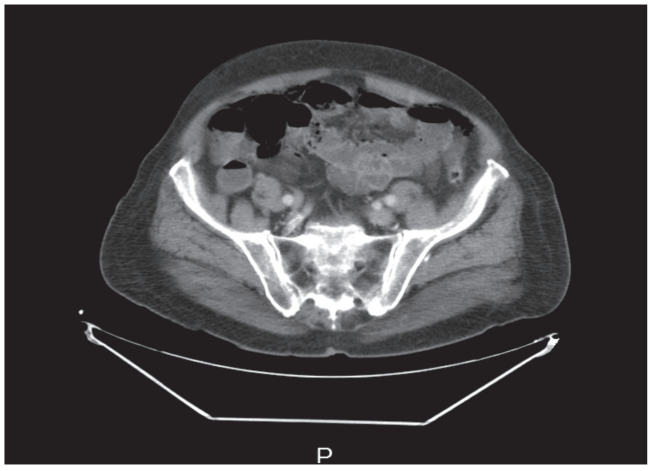

Fig. 1. Image of pneumatosis cystoides intestinalis.

obstruction (3), respiratory infections, tumor or collagen disease, traumas, immunosuppression and the use of steroids (5,7).

There are three pathologic forms: a) Microvesicular or pseudolipomatosis; b) cystic; and c) diffuse.

There are plenty of theories about the pathogenesis of pneumautosis intestinalis, including mechanical, bacterial, pulmonary, and caused by the increase in the mucosa permeability. The most accepted theories are the bacterial and the decrease in the mucosa permeability.

The diagnosis can be done through an abdominal and thorax radiography (4), being the most worthwhile study (5,8,9), or any other kind of image tests. The differential diagnosis should be established with cystic pathologies of the gastrointestinal tract.

Asymptomatic patients do not need a specific treatment (2-5). When pneumoperitoneum occurs, we should evaluate if there are peritoneal irritation signs or analytical changes to justify a laparotomy (1,3,4,6,9). Symptomatic patients with benign pneumoperitoneum can be treated with high-flow oxygen, completely solving the problem (5). The surgical treatment is used when complications such as volvulus, severe bleeding or obstruction are found. When this disease is secondary, the required treatment should be that of the causing disease.

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