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LETTERS TO THE EDITOR

Chilaiditi's sign☆

Signo de Chilaiditi

To the Editor,

Chilaiditi sign is characterised by interposition of the intestine (usually the hepatic angle of the colon) between the liver and right hemidiaphragm. It is a rare entity that was first described by Demetrius Chilaiditi, a Greek radiologist, in 1910.[1] It is more common in men (4:1 ratio), and is generally an incidental finding that appears in between 0.02% and 0.14% of radiological studies performed for any reason.[2] Its cause is unknown, although it is probably multifactorial.

Chilaiditi sign is asymptomatic. When associated with symptoms, it is called Chilaiditi syndrome. The most common symptoms are digestive: vomiting, anorexia, constipation and bloating. It can also be associated with respiratory symptoms like dyspnoea or pleuritic pain. As the physical examination is usually unremarkable, it is often underdiagnosed.[3]

The suspensory ligaments and fixation of the colon normally impede interposition of the colon between the liver and diaphragm. Chilaiditi syndrome has been associated with several predisposing factors (Table 1) that can change the relationship between the liver, colon and diaphragm.[2,4]

It is important to identify the presence of Chilaiditi sign in patients with predisposing factors in order to minimise iatrogenesis, as in the case of percutaneous transhepatic procedures or liver biopsy in cirrhotic patients or during colonoscopies.

Hepatodiaphragmatic interposition is generally diagnosed by plain X-ray. The typical image shows air below the diaphragm, with visible haustra between the liver and surface of the diaphragm (Fig. 1). In case of diagnostic uncertainty, the location of the air will not change when the patient changes posture.

Differential diagnosis should be made mainly with pneumoperitoneum, typically seen on X-ray as a half-moon shape extending below the diaphragm, with no visible haustra, and which changes with posture.

Table 1 Predisposing factors for Chilaiditi syndrome.

Liver
Hepatic ptosis
Cirrhosis
Atrophy of the liver
Alterations in the suspensory ligament of the liver
Intestinal
Megacolon
Meteorism
Abnormal colonic motility
Alterations in the suspensory ligament of the colon
Abnormal gas accumulation due to aerophagia
Diaphragmatic
Diaphragmatic thinning
Elevation right hemidiaphragm
Eventration
Phrenic nerve injury
Changes in intrathoracic pressure (e.g. emphysema)
Others
Enlargement of the lower chest cavity (chronic obstructive pulmonary disease)
Increased intra-abdominal pressure (obesity, multiple pregnancies, ascites)
Mental delay and schizophrenia
Intra-abdominal adhesions (due to previous surgery or neoplasia)
Previous endoscopic procedures

Other entities that should be included in the differential diagnosis are subphrenic abscess, intestinal pneumatosis, infected hydatid cyst and liver tumour.[2] Cases have also been documented with symptoms similar to renal colic, so this should also be considered in the differential diagnosis of this disease.

In the case of diagnostic uncertainty, ultrasound or computed axial tomography are the most commonly used additional studies.

No treatment is required in the case of asymptomatic patients. In cases of Chilaiditi syndrome with no severity criteria, treatment is initially conservative: bed rest, decompression with a nasogastric tube, intravenous fluids, enemas, laxatives and discontinuation of potentially related medication. Despite treatment, 26% of symptomatic patients eventually require surgery (colectomy, hepatopexia or colopexia).[5,6]

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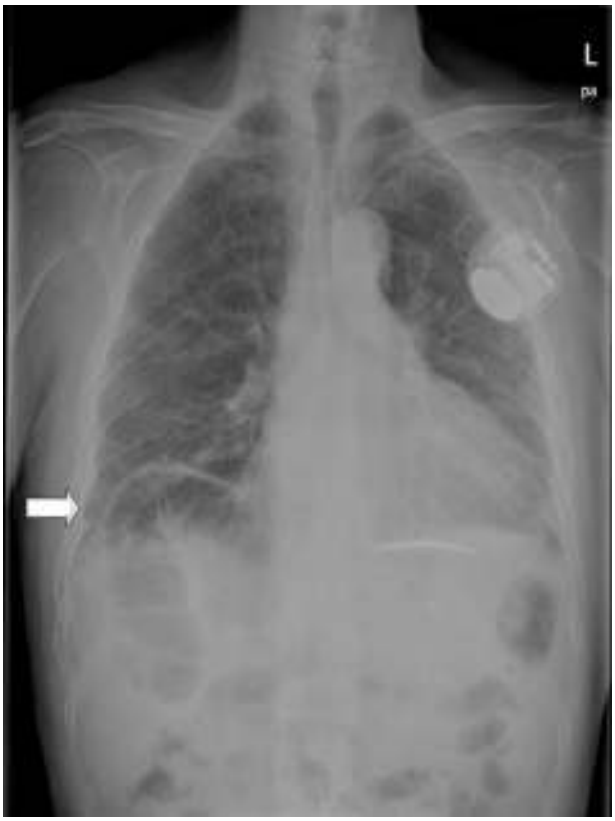

Figure 1 Interposition of the intestine between the liver and right hemidiaphragm in an asymptomatic patient. Haustra can be observed (white arrow). Findings consistent with Chilaiditi sign.

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Intestinal infiltration of high-grade large T-cell non-Hodgkin lymphoma with cyclin-D1 overexpression and aberrant CD79a expression in a patient with a diagnosis of tumour stage mycosis fungoides[☆]

Infiltración intestinal por linfoma no Hodgkin-T de células grandes de alto grado con sobreexpresión de ciclina-D1 y expresión aberrante de CD79a en paciente con diagnóstico de micosis fungoide en estadio tumoral

To the Editor,

The presence of intestinal involvement in tumour-stage mycosis fungoides (MF) is exceptional, with only isolated cases having been reported.[1–4] Considering the rarity of this complication and the clinical, radiological and pathological difficulties that it entails, we present a recent case of intestinal infiltration by high-grade large T-cell non-Hodgkin lymphoma (NHL) in a patient with a history of tumour-stage MF. The patient was a 78-year-old man with a history of MF cutaneous T-cell NHL, which in recent months had evolved to tumour stage with histological and immunohistochemical (IHC) confirmation. The patient underwent an emergency laparotomy for symptoms of acute abdomen secondary to intestinal perforation, in which a segment of small intestine was removed that presented signs of fibropurulent peritonitis and multiple tumour nodules, with full-thickness necrosis and invasion (Fig. 1A and B). Histological study showed infiltration of all layers of the intestine by a high-grade large-cell lymphoproliferative process (Fig. 1C–E). Differential diagnosis with the blastoid variant form of mantle cell lymphoma, diffuse large B-cell lymphoma or primary or secondary intestinal T-cell lymphoma related with the tumour-stage MF was initially considered. The IHC study showed strong, diffuse staining in tumour cells for CD2, CD3,

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