Cavitating mesenteric lymph node syndrome: CT findings

A 66-year-old woman presented with non-specific abdominal pain and weight loss for one year. Physical examination was normal. A chronic microcitic anaemia persisted after six months of oral iron administration. Gastroscopic examination demonstrated atrophy of duodenal mucosa; a biopsy was performed and the histological findings were consistent with coeliac disease. Abdominal CT showed increased attenuation of small bowel mesentery and multiple mesenteric hypodense/cystic lesions (ranging from 5 to 35 mm in diameter), some of them with fatty attenuation values. A cavitating mesenteric lymph node syndrome was diagnosed.

Discussion:

Cavitating mesenteric lymph node syndrome (CMLNS) is a rare complication of coeliac disease. The diagnosis of CMLNS is based on clinical and radiological findings including computed tomography, ultrasonography and magnetic resonance [1-3].

CMLNS is related to advanced stages of coeliac disease, and the majority remains undiagnosed and/or untreated. Clinically, patients present with fatigue, diarrhoea, and weight loss (sometimes refractory to treatment). Hyposplenism, with target cells and Howell-jolly bodies seen in peripheral blood, may also be present. Although CMLNS has a poor prognosis, regression of the lesions has been described after strict gluten-free diet [4].

CT features of CMLNS include fatty mesenteric masses with and/or without cavitation and sometimes with visible fat-fluid levels [5, 6]. Masses are usually confined to an isolated lymphatic chain. Small bowel enteropathy with mucosal ulceration is usually present. Splenic atrophy is also a common finding [7].

The aetiology of cavitating lymph nodes remains uncertain [1]. It has been suggested that damaged bowel mucosa allows benign hyperplasia of the nodal lymphoid elements leading to an “exhausted” state which causes cavitation. Fatty lymph nodes would be related to the accumulation of chylous material resulting from nodal chain malfunction.

Differential diagnosis of hypodense mesenteric lymph nodes includes Whipple disease, tuberculosis, lymphoma, necrotic metastases, and germ cell tumours [8].

Patients with coeliac disease have an increased risk of developing malignancies, mainly T-cell lymphoma (85-90%)
CT features of lymphoma include non-fatty lymph nodes affecting multiple lymphatic chains and territories and splenomegaly.

Although Whipple disease and tuberculosis may present with mesenteric fat-containing lymph nodes [10, 11], both entities are not associated with nodal cavitation. In addition, their clinical features, blood tests, response to gluten-free diet and intestinal biopsy may favour their diagnosis.

In summary, imaging plays an important role in the diagnosis of CMLNS, an uncommon complication of coeliac disease.

**Differential Diagnosis List:** Cavitating mesenteric lymph node syndrome (CMLNS)

**Final Diagnosis:** Cavitating mesenteric lymph node syndrome (CMLNS)

**References:**


Description: Abdominal CT showing multiple mesenteric hypodense/cystic lesions, some of them with fatty attenuation values. Origin:
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Figure 3

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