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CASE REPORT

Atypical Presentation of Coeliac Disease: An Ascites Revealing a Coeliac Disease in Systemic Lupus Erythematosus: A Case Report

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Abstract

Coeliac disease (CD) is a chronic inflammatory of the small intestine triggered by the ingestion of gluten. It has been associated with autoimmune disorders. Although many similarities exist between the pathogenesis of CD and that of systemic lupus erythematosus (SLE), their association has rarely been found. Coeliac disease is most often revealed by digestive manifestations with malabsorption syndrome. However, the attack of the serosa can exceptionally reveal this enteropathy making the diagnosis difficult. We describe the case of a 55-year-old woman who had an ascites revealing an coeliac disease in systemic lupus erythematosus revealed ascites.

Keywords:

- *Ascites*
- *Coeliac Disease*
- *Systemic Lupus Erythematosus*

Introduction

Systemic lupus erythematosus (SLE) and coeliac disease (CD) are complex clinical diseases. Coeliac disease (CD) is a complex and heterogeneous autoimmune disease. Their pathogenesis is not yet fully understood, genetic and environmental factors are implicated [1,2].

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Gastrointestinal manifestations of systemic lupus erythematosus is well documented [3], but its association with celiac disease is rare [4,5]. We report the case of a 55-year-old woman who had an ascites revealing a coeliac disease in systemic lupus erythematosus revealed ascites.

Patient and Observations

55-year-old woman, with no particular pathological history, hospitalized for the exploration of moderate ascites evolving for 4 months, associated with peripheral polyarthralgia of the elbows, wrists and knees. The patient had pallor of the skin with the signs of malnutrition and multiple non-necrotic ulcerations without inflammatory signs next to the lateral surfaces of the two lower limbs (Figure 1). There was no sign of right heart failure, no transit disorder and the lymph node areas were sain.

The Hemoglobin Level was 8.5g/dL and C-reactive protein (CRP) 52mg/L. The patient had a hyboalbuminemia at 19mg/L, hypocalcemia at 66mg/L with the prothrombin count at 55%, proteinuria of 24hours was negative. The results of ascites puncture reveals à protein level of 22.5 g/l with an albumin gradient of 7.7g/l, 150 leukocytes/mm 3 including 55% of lymphocytes. Abdominal ultrasound showed a steatotic homogeneous liver with no detectable nodular lesion with a very abundant peritoneal effusion visible in the peri-hepatic, peri-splenic, inter-handle and pelvic floor, with finely echogenic content.

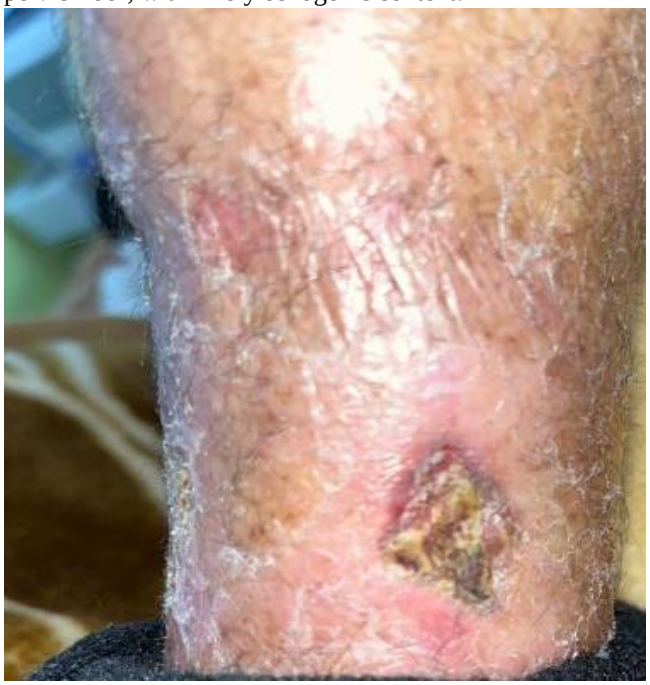

Figure 1: ***Non-necrotic Ulceration without Inflammatory Signs on the Lateral Surfaces of the Left Lower Limb***

Gastroscopy did not find signs of portal hypertension but rather presented an aspect of erythematous pangastritis, with effaced duodenal folds, the histological study of which revealed chronic interstitial duodenitis, Marsh stage 3a modified: partial villous atrophy with intraepithelial lymphocytosis at 35%.

The serological results were positive (positive igG-type anti-transglutaminase antibodies), the patient has coeliac disease without gastrointestinal symptoms. Thus, she was put on a gluten-free diet. During her hospitalization, the patient presented an erythematous lesion in the form of a paillon wing on the face. The antinuclear antibodies by direct immunofluorescence was positive at 1/640 and the anti-DNA antibodies positive. According to ACR criteria, the patient has systemic lupus erythematosus. She was put on prednisone at a dose of 1mg/kg/d with a good clinical course.

Discussion

Coeliac disease develops in genetically susceptible individuals who in response to unknown environmental factors, develop an immune response that is subsequently triggered by the ingestion of gluten, that activates the T lymphocytes causing villous atrophy. CD occurs in about 1% of people in most populations [6].

The disease is generally revealed by mainly digestive manifestations according to a recent Swiss cohort of 1689 patients, however, 1.8% of patients are completely asymptomatic.

The clinical manifestations of CD are very diverse; the ascites has been reported only rarely as a symptom of CD [7].

This case presents a form of CD without transit disorders and the diagnosis was made on upper digestive fibroscopy and serology. Diagnostic and screening methods have revealed an apparent increase in the incidence of CD, since over 80% of diagnosed cases are asymptomatic or only mildly symptomatic [8]. Only the gluten-free diet improves the symptoms of the disease, which seems very difficult to respect with minimal efficacy in refractory forms [9].

Systemic lupus erythematosus (SLE) is a chronic, multisystem autoimmune disease whose clinical and serological manifestations can involve many organs and vary considerably from patient to patient. Skin eruptions, arthritis, cytopenias and kidney disease are often described, [10,11]. Case reports and case series have showed an association between CD and SLE [12-13]. Furthermore, Ludvigsson *et al.* [14] reported a three times higher risk of SLE in patients with coeliac disease compared to the general population in a large population-based study.

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Systemic lupus erythematosus (SLE) is frequently accompanied by pleurisy or pericarditis, and rarely by ascites, which testifies to the activity of the disease and occurs when the diagnosis of lupus has already been made; this reflects the diagnostic difficulties of SLE when peritoneal involvement is predominant [15].

There are many similarities between these two autoimmune diseases, with common genetic, environmental and immunological factors that may explain the comorbidity. New theories explaining this possible association have recently emerged. They include the influence of the human gut microbiota on the gut-immune system axis, common immunological markers and genetic aspects, as well as environmental factors [16]. The true prevalence of CD in patients with SLE is still unknown, but it is an important factor to consider, including the need for screening strategies in patients with SLE or other celiac disease.

Conclusion:

The search for the association between systemic lupus erythematosus and coeliac disease is necessary to determine the real prevalence of this coexistence, as well as the mode of revelation which can be atypical as the case of this patient.

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Ethical Approval: Not applicable

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