Celiac disease associated with antiphospholipid syndrome

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ABSTRACT

Introduction: celiac disease may be associated with pathologies of immune etiology. We present its association with antiphospholipid syndrome.

Case 1: a 26-year-old female was diagnosed with celiac disease. Six months later she became pregnant, and experienced fetal death. The following year she became pregnant again. IgG anticardiolipin antibodies: 20 GPL U/ml (normal value < 11), and IgM anticardiolipin antibodies: 9 MPL U/ml (v.n. < 10). Hematological tests were otherwise uneventful. Medicated with acetylsalicylic acid she had a normal pregnancy.

Case 2: a 48-year-old female diagnosed with celiac disease presented with thrombosis in her left lower limb and renal infarction. Hematological tests showed no prothrombotical alterations (antiphospholipid antibodies were not measured). A year and a half later she had thrombosis in a finger of her hand. IgG anticardiolipin antibodies: 10 GPL (n.v. < 13), and IgM anticardiolipin antibodies: 35 MPL (n.v. < 12).

Case 3: a 38-year-old female was diagnosed with celiac disease. Some time later she experienced two spontaneous abortions and a transient ischemic cerebral attack. Nowadays, she is in her sixth month of pregnancy. IgM anticardiolipin antibodies: 75 MPL/ml (n. v. up to 20), and IgG anticardiolipin antibodies within normal values. Hematological tests revealed no other prothrombotical alterations.

Discussion: antiphospholipid syndrome is characterized by arterial and venous thrombosis, and spontaneous fetal death. Its association with celiac disease has been described in few cases. Celiac disease is associated with spontaneous fetal death; consequently, we hypothesize that antiphospholipid syndrome may be one of the causes for this event.

Key words: Celiac disease. Antiphospholipid syndrome. Anticardiolipin antibodies. Spontaneous fetal death.

INTRODUCTION

Celiac disease may be associated with numerous pathologies of immunologic etiology like insulin-dependent diabetes mellitus, autoimmune thyroiditis, systemic lupus erythematosus, Sjögren’s syndrome, polymyositis,
myasthenia gravis, and rheumatoid arthritis (1). We report on celiac disease associated with antiphospholipid syndrome.

CASE REPORT NO. 1

A 26-year-old female diagnosed with celiac disease had antitransglutaminase antibodies = 73 U (normal value up to 10), and duodenal biopsy showed an enteropathy with severe villous atrophy (stage III). She evolved favorably with a gluten-free diet, diarrhea disappeared, and her nutritional status improved. Six months later she became pregnant, and experienced fetal death at 36 weeks. The following year she became pregnant again. We measured IgG anticardiolipin antibodies: 20 GPL U/ml (n.v. < 11), and IgM anticardiolipin antibodies: 9 MPL U/ml (n. v. < 10). Hematological tests showed no other prothrombotic alterations. We administered acetylsalicylic acid 200 mg daily, which resulted in a normal pregnancy and delivery with caesarean section.

CASE REPORT NO. 2

A 48-year-old female diagnosed with celiac disease had antitransglutaminase antibodies over 100 U/ml (n. v. up to 10), and duodenal biopsy revealed severe villous atrophy (stage III). We prescribed a gluten-free diet. She developed thrombosis in her left lower limb, and a left renal infarct was diagnosed by MRI. We decided to use anticoagulation with acenocoumarin. Hematological tests showed normal values for antithrombin III, protein C, protein S, and Leiden factor V. Acenocoumarin was discontinued. A year and a half later the patient presented with thrombosis in the middle finger of her right hand. Acenocoumarin was indicated again. We measured IgG anticardiolipin antibodies: 10 GPL (n. v. < 13), and IgM anticardiolipin antibodies: 35 MPL (n. v. < 12).

CASE REPORT NO. 3

A 38-year-old female diagnosed with celiac disease had anti transglutaminase antibodies = 46 U (n. v. up to 5), and duodenal biopsy was compatible with celiac disease. Some time later she had two spontaneous abortions and a transient ischemic cerebral attack. She is currently in her sixth month of pregnancy, with IgM anticardiolipin antibodies at 75 MPL (n. v. up to 20) and IgG anticardiolipin antibodies within normal values. Hematological tests showed no other prothrombotic alterations. She is being treated with subcutaneous heparin and a gluten-free diet.

DISCUSSION

Antiphospholipid syndrome is characterized by arterial and venous thromboses and spontaneous fetal death (possibly due to thrombosis in placental blood vessels). There are several antiphospholipid antibodies like anticardiolipin and anti-b2 glycoprotein against vascular walls. It may be primary or associated with other pathologies like connective tissue diseases or idiopathic inflammatory bowel disease (2). Its connection with celiac disease has been described in few cases, associating it with portal vein thrombosis (3), nodular regenerative hyperplasia (4), cutaneous necrosis (5), and dilated cardiomyopathy (6). Celiac disease is associated with spontaneous fetal death (7). Therefore, we hypothesize that antiphospholipid syndrome could be one of the causes of this phenomenon.

In conclusion, we may say that celiac disease can be associated with antiphospholipid syndrome, with risk of thrombosis, organ infarction, and fetal death. These findings should be confirmed with studies involving a greater number of patients.

REFERENCES