

Nystagmus in a Young Male with Celiac Disease

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Abstract

A 25 y/o male was admitted with iron deficiency anemia and nystagmus. Anti-TTG (IgA) and Anti-endomyosial (IgA) were high and pathologic findings in duodenal biopsy were suggestive of celiac disease. The diagnosis of celiac disease associated with nystagmus was made.

Key Words: Anemia, Nystagmus, Celiac disease, Iron Deficiency

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Introduction

Most patients with celiac disease present gastrointestinal symptoms but in some of them extraintestinal manifestations include anemia, coagulopathy, metabolic bone diseases, infertility may be the first manifestation of disease [1], and in a proportion of them psychiatric syndromes and various neurological disorders may be initial manifestations. (2) Neurological manifestations including: cerebellar ataxia, epilepsy, peripheral neuropathy, dementia and multifocal leucoencephalopathy have all been described occur in 6 to 10% of patients with celiac disease. (3) Nystagmus has rarely seen and only in a few cases of celiac disease has reported. (4, 5, 6)

Case report

A 25 y/o male was admitted with anemia and dizziness. He had weight loss since 1 year ago and history of anemia and taking blood transfusion since 5 years ago.

Physical examination showed facial skin pigmentation with chloasma like appearance (Figure-1) and bilateral horizontal nystagmus, and koilonychia (Figure-2) and splenomegaly (Table-1)



Figure-1



Figure-2

Table-1: Physical findings of patient on admission

Physical Findings
Pallor
Bilateral horizontal nystagmus
Facial skin hyperpigmentation
Splenomegaly
koilonychia

Results of CBC revealed: WBC=2900/ μ l, Hb=3.2 gr/dl, MCV=58.4 fl and Plt count=136,000/ μ l. Further assessment showed Iron deficiency and markedly increased in Anti Endomyosial (IgA) and Anti-tissue Trans glutaminase (TTG) IgA. Laboratory tests are included in Table-2.

FBS, Na, K, PT, PTT, BUN and Cr all were reported normally. ANA, Anti-Ds DNA, HBs Ag and HCV Ab were negative. Abdominal sonography showed Hepato-Splenomegaly. Upper GI endoscopy and duodenal biopsy was done. Pathologic exam showed: moderate infiltration of lymphocytes, plasma cells and few neutrophils in lamina propria, villous blunting and flattening, focal hyperplasia of crypts and intraepithelial lymphocytosis (about 40/100 enterocytes) suggestive of celiac disease, Marsh class III. (Figures-3, 4)

Table-2: Laboratory findings of patient on admission

Test	Result	Unit	Normal ranges
ESR	14	mm/hour	0-15
Ferritin	4	ng/ml	38-457
IgA	2.33	mg/dl	0.8-3.2
Iron	39	mcg/dl	35-168
TIBC	450	mcg/dl	230-440
Anti Endomyosial (IgA)	216	u/ml	<12
Anti-tissue transglutaminase(TTG) IgA	106.6	u/ml	<12
Total Protein	7.7	gr/dl	6.6-8.8
Albumin	4.8	gr/dl	3.5-5.2
AST	31	U/L	<50
ALT	23	U/L	<50
Total Bilirubin	1.33	mg/dl	0.1-1.2
Direct Bilirubin	0.35	mg/dl	<0.2
Alk P	122	U/L	80-306
LDH	767	U/L	Up to 480

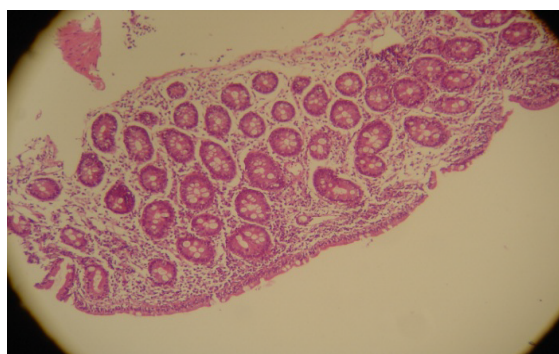


Figure-3

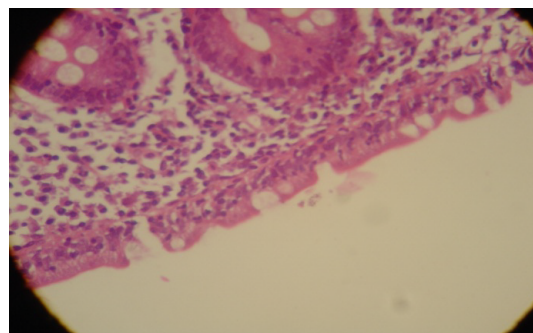


Figure-4

Discussion:

Patients with celiac sprue or gluten-sensitive enteropathy in the classic form present with diarrhea, but in the atypical form of disease patients have only subtle symptoms or are asymptomatic. (7) Hematologic manifestations of celiac disease are included: iron, folate and/or B12 malabsorption, thrombocytosis, thrombocytopenia, leucopenia, hyposplenism, IgA deficiency and venous thrombosis. They are at risk for development of non-Hodgkin's lymphoma especially for enteropathy associated T-cell lymphoma and also B-cell lymphoma. (8) Neurologic manifestations are included motor weakness and paresthesias in those with hypocalcemia and seizure in patients with cerebral calcifications. (9)

Nystagmus was reported in patients with celiac disease. (4, 5, 6)

Progressive ataxia, downbeat nystagmus and spastic tetraparesis have reported in a case of celiac disease. The possible mechanism for neurologic manifestations of celiac disease is immune mediated process which is supported by positive anti- endomyosial and anti-tissue transglutaminase antibodies in the cerebrospinal fluid. (5)

In another study, in electronystagmography gaze nystagmus, disordered eye-tracking test and optokinetic nystagmus were observed most frequently in patients with celiac disease compared with healthy group (6).

In this young male with iron deficiency anemia, facial skin pigmentation and nystagmus further assessment revealed markedly elevated Anti-TTG (IgA) and Anti-endomyosial (IgA) and villous blunting and intraepithelial lymphocytosis in duodenal biopsy suggestive of celiac disease. The Diagnosis of celiac disease was made and gluten free diet was initiated.

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