

Title:

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Upper gastrointestinal complaints in celiac patients at diagnosis. Association with endoscopic and histopathological findings

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Dear Editor,

This study investigated the prevalence of upper gastrointestinal symptoms in Brazilian patients at the diagnosis of celiac disease (CD), associating with endoscopic and histopathological findings. We did a retrospective study including adult patients diagnosed with CD during January 2013 to December 2019. Charts were reviewed for demographic, clinical profile, gastrointestinal symptoms. Duodenal biopsies and gastric biopsies were performed in cases with macroscopic alteration. Were studied 127 patients (80.3% women, median age of 36 years). Flatulence, abdominal distension and pain were the most frequent general complaints. Constipation was more frequent

in women ($p=0.0008$; $OR=13.1$; $CI=1.7-98.2$). Concerning the upper symptoms the main findings were gastroesophageal reflux (48%) and epigastric pain (40.1%). Non-erosive esophagitis was observed in 28.3% with higher prevalence in men ($p=0.052$). Macroscopic gastritis was found in 44.8% patients and among these, 62.5% presented active or inactive gastritis on histological analysis. Endoscopic evaluation of the duodenum showed changes in 63.4% of cases, being more frequent in men ($p=0.028$; $OR=3.3$; $CI=1.0-10.5$). Patients with complaints of GER presented non-erosive esophagitis in the endoscopy in 27.4% of cases. Patients who reported epigastric pain showed gastritis in endoscopic examination in 49.0% of the cases. Our results indicate that a normal macroscopic appearance in the esophagus and/or stomach can predict normal histology in adult suspected of CD submitted to upper endoscopy. We also suggest that esophageal and gastric biopsies cannot be considered as a routine procedure, only are indicated when any abnormality is detected, allowing reduction in costs and time of endoscopy. We did not find an association between upper complaints of GER and epigastric pain with endoscopic nor histological findings. Concluding, in our sample, at diagnosis celiac patients present symptoms related to upper digestive tract, being the most frequent gastroesophageal reflux and epigastric pain. These complaints did not show total concordance with the endoscopic findings.

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Table 1. Endoscopic and biopsy findings in the celiac patients studied.

	Female n (%)	Male n (%)	Total n (%)
Esophagus			
<i>Endoscopic finding</i>			
Normal	75/102 (73.5)	14/25 (56.0)	89/127 (70.1)
Esophagitis ^a	25/102 (23.5)	11/25 (44.0)	36/127 (28.3)
Other	2/102 (1.9)	0	2/127 (1.6)
Stomach			
<i>Endoscopic finding</i>			
Normal	56/102 (54.9)	12/25 (48.0)	68/127 (53.5)
Gastritis ^b	45/102 (44.1)	12/25 (48.0)	57/127 (44.8)
Other	1/102 (0.9)	1/25 (4.0)	2 /127 (1.7)
<i>Gastric biopsy</i>			
Normal	18/49 (36.7)	5/15 (33.3)	23/64 (35.9)
Gastritis ^c	31/49 (63.3)	9/15 (60.0)	40/64 (62.5)
Ulcer	0	1/15 (6.7)	1/64 (1.5)
Duodenum			
<i>Endoscopic finding</i>			
Normal	40/102 (39.2)	4/25 (16.0)	44/127 (34.6)
Alteration ^d	62/102 (60.8)	21/25 (84.0)	83/127 (63.4)
Other	0	0	0
<i>Duodenal biopsy</i>			
Marsh I	6/102 (5.8)	1/25 (4.0)	7/127 (5.5)
Marsh II	30/102 (29.4)	7/25 (28.0)	37/127 (29.2)
Marsh III	66/102 (64.8)	17/25 (68.0)	83/127 (65.3)

^a P = 0.052 ; ^b P = 0.88 ; ^c P = 0.7 ; ^d P = 0.028 OR=3.3 (CI = 1.0 – 10.5)