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**A prospective study to evaluate the role of duodenal bulb biopsy in the diagnosis of celiac disease**

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**Abstract**

**Background:**Celiac disease (CeD) requires a biopsy from the small intestine to confirm the diagnosis. Conventionally, duodenal bulb (D1) was avoided as a biopsy site due to histological confounding factors at this site. However, sometimes, the bulb mucosa is the only affected site. The aim of the present study was to assess changes in duodenal bulb histology and compare it to distal duodenal histology and to analyze whether the addition of duodenal bulb biopsy increases the diagnostic yield of the CeD.

**Methods:**It was a prospective study comprising of 98 patients of CeD who were symptomatic clinically and had positive anti tissue transglutaminase (tTG) antibody. Endoscopically four mucosal biopsies were taken, two each from the bulb and distal duodenum, and morphology was graded as per modified Marsh grade.

**Results:**Iron deficiency anemia (40%) was a most common clinical presentation followed by chronic diarrhea (30%). Sixty patients showed same Marsh grade and 38 showed different Marsh grade at both sites. Patients who were showing the difference in the Marsh grade at the two biopsy sites, in place of; descending duodenum showed higher grade in 24 patients while higher mucosal atrophy was documented in the bulb in 14 patients. No patient of CeD had isolated D1 involvement. In eight patients, the correct diagnosis of CeD could be made only because of bulb biopsy.

**Conclusion:**Majority of the patients had no classical symptoms. Different Marsh grade at the two biopsy sites was documented demonstrating the patchy distribution of CeD. Combining biopsy from both bulb and descending duodenum maximizes the diagnostic yield of the CeD.

**Keywords:**Celiac disease; Duodenal bulb biopsy; Marsh grade.

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