



## CARCINOMA OESOPHAGUS IN CELIAC DISEASE- BE VIGILANT

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**ABSTRACT** **Introduction-** Celiac disease (CD) has immune based autoimmune disease which is noticed in genetically predisposed persons and is due to gluten allergy. It was initially thought that it is disease of children and presents with typical or classical symptoms associated with gastro-intestinal tract like pain abdomen, diarrhea or constipation. Now, it has been proven that it is commonly seen in adult age also and in half of cases presents with atypical or unclassical symptoms which are mainly due to nutrients or minerals deficiency. Celiac disease (CD) is associated with a modestly increased risk of developing carcinoma of the esophagus, particularly squamous cell carcinoma (SCC), due to chronic inflammation. Studies indicate a significantly higher prevalence of CD in patients with SCC, and it is considered a potential risk factor. The risk is often linked to the duration of untreated CD. **Case Report-** A fifty-year-old female presented, a known case of celiac disease for last four years, and was diagnosed on basis of serological, endoscopic and histopathological examination of duodenal biopsy. She was on strict gluten restricted diet and presented with gradually progressive dysphagia for last three months. In the beginning, the dysphagia was to solids which latter progressed to liquids and for last fifteen days, she was only able to take only sips of water. The barium swallow showed almost complete obstruction at level of upper esophagus (C3-C5 level). The upper gastro-intestinal endoscopy showed completely obstructive growth in upper esophagus. The histopathological examination proved it to be squamous cell carcinoma. The serum IgATTG antibody level was under control with value of 10 IU/ml, the normal range being 0-20 IU/ml. All biochemical labs were normal except for mild normocytic normochromic anemia. The chest x-ray, ultrasound abdomen and ECG were also normal. She was referred for the same to radiotherapy department as SCC are radiosensitive. **Conclusion-** Celiac disease with passage of time has been proven to be having many extra-intestinal manifestations, including malignancies. Initially it was thought that malignancies are limited to blood and small bowel but later on its association with large bowel, oesophagus, gastric, liver and pancreas have been commonly reported. Thus, it merits life long vigil in a celiac patient by treating health care team.

**KEYWORDS :** Celiac Disease, Gluten, Carcinoma Esophagus, Serum IgATTG Antibody, Endoscopy

### INTRODUCTION

Celiac disease has immune based autoimmune disease which is noticed in genetically predisposed persons and is due to gluten allergy [1-3]. The global prevalence of CeD has been estimated at around 1.7% based on positive serology and 0.7% based on biopsy-confirmed CeD [4]. It was initially thought that it is disease of children and presents with typical or classical symptoms associated with gastro-intestinal tract like pain abdomen, diarrhea or constipation. Now, it has been proven that it is commonly seen in adult age also and in half of cases presents with atypical or unclassical symptoms which are mainly due to nutrients or minerals deficiency. CD is a chronic inflammatory autoimmune disease which is linked to a higher risk of Squamous cell carcinoma (SCC) of the oesophagus, mouth, and pharynx. A meta-analysis indicated that patients with CD have a nearly 4-fold higher risk of developing esophageal cancer. The chronic, long-term inflammation of the gastrointestinal tract due to gluten exposure is thought to be a factor in malignancy development. Some studies suggest that the risk of complications from untreated CD warrants screening for esophageal malignancies in adult celiac patients. While less common than T-cell lymphoma, reports exist for esophageal adenocarcinoma occurring in patients with longstanding, potentially mismanaged celiac disease. Patients with this association often present with dysphagia and weight loss.

### Case Report

A fifty-year-old female presented, a known case of celiac disease for last four years, and was diagnosed on basis of serological, endoscopic and histopathological examination of duodenal biopsy. She was on strict gluten restricted diet and presented with gradually progressive dysphagia for last three months. In the beginning, the dysphagia was to solids which latter progressed to liquids and for last fifteen days, she was only able to take only sips of water. The barium swallow showed almost complete obstruction at level of upper esophagus (C3-C5 level). The upper gastro-intestinal endoscopy showed completely obstructive growth in upper esophagus. The histopathological

examination proved it to be squamous cell carcinoma. The serum IgATTG antibody level was under control with value of 10 IU/ml, the normal range being 0-20 IU/ml. All biochemical labs were normal except for mild normocytic normochromic anemia. The chest x-ray, ultrasound abdomen and ECG were also normal. She was referred for the same to radiotherapy department as SCC are radiosensitive.



Figure 1- Barium Swallow Showing Narrowing at C3-C5 Level (Blue Arrow)



Figure 2- Endoscopy Showing Growth at Upper Esophagus (Blue Arrow)

## DISCUSSION

Celiac Disease is an autoimmune disorder where consuming gluten (found in wheat, barley, and rye) triggers an immune response that damages the small intestine's villi. The symptoms include chronic abdominal pain, diarrhea, fatigue, weight loss, growth failure in children, and skin rashes. The diagnosis involves blood tests for antibodies (serum IgATTG antibody test) and an endoscopic biopsy to confirm damage to the small intestine. Malignant disease is a serious concern in celiac disease. Diagnosed celiac disease has been traditionally linked with greatly increased risks of lymphoma and other malignancies. An increased risk of esophageal and pharyngeal carcinoma has been shown in some European studies. Patients of CD who are undiagnosed or do not adhere to strict gluten-free diet are prone to develop complications especially malignancy [5]. The intercourse between Esophageal squamous cell carcinoma etc. (ESC) and Celiac disease (CD) is still a complicated subject. A study demonstrated a statistically significant positive correlation between ESC and CD [6]. Han et al. [7] published a meta-analysis that reported an association between CD patients with a higher increase in GI cancers, and among single types of tumors, esophageal cancer was found to be associated with CD.

## CONCLUSION

Celiac disease with passage of time has been proven to be having many extra-intestinal manifestations, including malignancies. Initially it was thought that malignancies are limited to blood and small bowel but later on its association with large bowel, oesophagus, gastric, liver and pancreas have been commonly reported. Thus, it merits life long vigil in a celiac patient by treating health care team.

## Conflict of Interest

No conflict of interest and prior permission from patient and relatives was taken before publishing the case report.

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