

An Emerging Epidemic in India: Celiac Disease

Abstract

Celiac disease is not a rare and newly emerged disease. about 1% people in the world are affected with this gastrointestinal disorder. the first case was reported by Samuel Gee in 1888, but still it is not considered as an epidemic or severe intestinal disorder because number of patients do not show specific symptoms¹

New pathological researches make it possible to diagnose the disease and provide the suitable treatment. diet management is suggested best treatment for celiac disorder. Early pathological studies (1953) considered it as an autoimmune disorder³ but it is an inflammation in gut lining due the absence of glutinase enzyme in intestine. glutinase helps to absorb gluten present in major food sources i.e. wheat, barley and rye.

Keywords: Celiac, Gluten, Epidemic, Villi, Inflammation, Peptic Ulcers, Immune Disorder, Bloating

Introduction

In India 6-8 million people are suffering from celiac disease. Major concerning issue is that celiac disease must not be confused with gluten hypersensitivity. Wheat, barley are the staple food in India. According to the data² about 1% of the population is affected by this disease. Gastroenterology department of AIIMS, New Delhi stated that every 1 in 100 people suffers from celiac disease and now it is seen as one of the emerging health epidemic in India.

Celiac disease is a kind of hypersensitivity to gluten or wheat and barley. Gluten intolerance is also known as non celiac intolerance but it do cause an immune response or intestinal damage like celiac disease. Overall gluten allergy causes short term bloating and intestinal pain while celiac disease leads to long term harm to the body.

Aim of the Study

This article is not a data base research work; aim of this article is to make people aware of this disease. Some times in the lack of knowledge and awareness normal intestinal disorders led to severe intestinal ulcers or cancer.

Factors Known for Causing Celiac Disease

There are number of external and internal factors known to be responsible for prolonged gastrointestinal disorders. viral infections to gastrointestinal area or gut bacteria may role in this. Emotional stress, post surgery conditions are considered as external factors. Experts explained the abnormal immune system reactions to gluten as the potent reason of celiac disease. According to this view immune system start producing antibodies against gluten protein. These antibodies also start damaging the absorptive villi surface of small intestine. This damage lead to the inflammation of gut lining.

Some research found celiac disease as genetic, some patients had family history. On the basis of gene history it is explained that celiac disease is the abnormal changes or mutations in HLA-DQ group of genes. This group is responsible for the development of immune system.

Symptoms

Symptoms of celiac disease are majorly gastrointestinal problems. Children and adults show slight differences in symptoms. Common problems are:

1. Abdominal pain
2. Nausea
3. Fatigue
4. Softening of bones
5. Mouth and intestinal ulcers
6. Weight loss (>23%)



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Children show Some Other Symptoms

1. diarrhea
2. vomiting
3. Bloating (swelling of belly-73% celiac patients have inflammation of digestive tract)

Constipation

Iron deficient anemia 23% (decreased absorption of nutrients and heavy bleeding through peptic ulcers.

Depression

Sometimes hormonal imbalance in celiac patients causes depression.

Dermatitis

Lack of nutrients causes itchy rashes on skin (about 17 %) Celiac patients may become certain nutrient deficient as their intestine doesn't absorb them properly. Common nutrient deficiency is iron, copper, zinc, magnesium, niacin, vitamin-D, fibres and folate.

Once patient switch on to gluten free diet intestine recovers and become able to absorb the nutrients.

Diagnosis of Celiac Disease

On the basis of Gastrointestinal problems and over all growth affecting symptoms doctors diagnose Blood tests for the confirmation of celiac disease.common blood tests are for:

1. CBC
2. Liver function tests
3. Alkaline phosphatase level test
4. Serum albumin test (in blood high level of EMA(Entiendomysium) and anti tissue transglutaminase confirms the occurrence of celiac disease.)
5. For more accuracy Endoscopy and biopsy of intestinal lining is done.
6. For dermatitis in celiac patients skin tissues are examined for the presence of antibodies. If skin biopsy and blood shows the presence of antibodies then intestinal biopsy is not required⁶.

Preventive Measures or Treatment of Celiac Disease

The only preventive measures suggested by physician are to follow strict gluten free diet. Gluten content in the diet will cause lesions, inflammation in gut lining. Gluten free food helps in the healing of intestinal scars. This diet pattern is the only suggested medication in the treatment of celiac disease.

Along with selected gluten containing grains like wheat, barley, rye and semolina etc.there is a list of many food items that are to be avoided. Processed and canned food also be avoided as some of these food contains wheat flour as common ingredient, such food are:

1. ice cream
2. candy bars(chocolate)
3. processed and canned meat
4. ketch up
5. yogurt
6. pasta and pastries
7. in some medicinal drugs wheat starch is also used as binding agent
8. some herbal toothpastes
9. cosmetics products(lipstick)
10. Nutritional supplements(containing whey supplements)

Endnotes

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