



پاکستانی سیلیک سوسائٹی
Pakistani Celiac Society
www.celiac.com.pk

گلوٹن کے بغیر روزمرہ زندگی All About Gluten-Free Lifestyle

NEWSLETTER

Summer 2011
(July to September)

DIRECTORS

President--Mr. Ahsan Rashid
General Secretary -- Mr. Sultan Yousaf
Treasurer -- Mrs. Maria Avais

Founder & Patron:
Dr. Mohsin Rashid FRCP(C)
Paediatric Gastroenterologist

MISSION STATEMENT

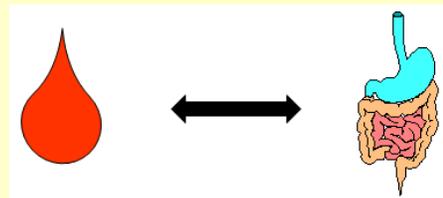
The Pakistani Celiac Society is a national, volunteer, non-profit organization dedicated to provide support and services to individuals and families with celiac disease and dermatitis herpetiformis through programmes of awareness, advocacy and education.

What is New?

So what is new in celiac disease? Well, lots of things. There are exciting things happening such as improved understanding of the genetic factors involved in the etiology of celiac disease, availability of better diagnostic tests and strategies for finding a cure. Another important development in the area of celiac disease is recognition of the fact that patients with this disorder can present in a variety of ways including non-gastrointestinal symptoms such as anemia, bone disease, liver problems, short stature, etc.

One of the reasons that celiac disease is not diagnosed in time is that many patient do not have the typical gastrointestinal symptoms of abdominal pain, diarrhoea and weight loss. We will be having a series of articles in this and the upcoming issues of the Newsletter to highlight some of the common non-gastrointestinal presentations of celiac disease. These will be of benefit to both the doctors and the patients.

Anemia and Celiac Disease



One way in which celiac disease can present is anemia. In fact, iron deficiency anemia has become the most common non-gastrointestinal manifestation of celiac disease in adults. Not only that a patient with anemia may have celiac disease, but also many patients diagnosed with celiac are found to have anemia.

The term anemia means lack of blood in the body. It specifically refers to lack of red blood cells (RBCs) in the blood. The RBCs are made in the bone marrow from where they move into the circulation. They contain an important substance called *hemoglobin* which has the ability to carry oxygen. Once in the blood, these RBCs transport oxygen from the lungs to various tissues of the body, a process that is essential for life.

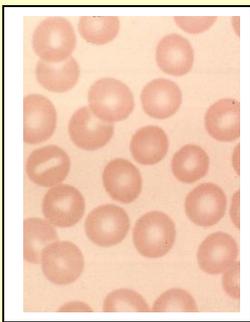
Anemia can occur from decreased production or increased destruction of RBCs or loss of blood from the body. While there may be some chronic blood loss from the intestines in patients with celiac disease, the primary cause of anemia in celiac disease is failure of production of adequate RBCs.

Several nutrients are required for the adequate production of RBCs, most importantly iron, folate and vitamin B12. The lining of the small intestine (mucosa) has tiny finger-like structures called villi. These villi are responsible for absorption of all the nutrients from the diet including proteins, carbohydrates, fats, vitamins and minerals. In celiac disease, ingestion of gluten causes damage to these villi. It is, therefore, easy to understand why anemia would occur in celiac disease.

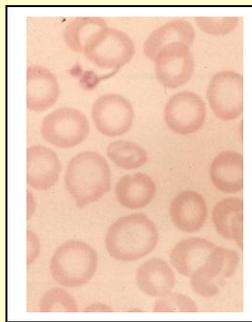
Anemia in celiac disease can occur from lack of iron, folate or vitamin B12. There can also be a combination of these nutritional deficiencies.

Iron deficiency is the most common type of anemia found in celiac disease. There are good reasons why this is the case. Iron is absorbed in the duodenum, which is the beginning part of the small intestine. This is also the site of the greatest damage in celiac disease as this part of the intestine takes the brunt of the ingested gluten. (That is why the duodenum is the preferred site to biopsy during endoscopy to confirm the diagnosis of celiac disease).

The damage to the mucosa of the small intestine can impair the absorption of iron from the diet. Although, we have some iron stored in the body, it will run out over time if no further iron is available. As the iron stores in the body gradually get depleted, anemia develops. The RBCs become small in size and pale in color as they lack adequate amount of hemoglobin. The individual may then develop a variety of symptoms including fatigue, exercise intolerance and shortness of breath as the body gets deprived of oxygen. In severe case the heart may fail to function and death can occur.



(Normal RBCs)



(RBCs in iron deficiency)

Administering iron supplements orally will not be of much help in case of celiac disease as iron cannot be adequately absorbed from the damaged intestines. Giving iron by injections (in the muscle or intravenous) will improve the anemia. However, anemia will recur quickly once the injections are discontinued.

Anemia can also occur from deficiency of folate and vitamin B12 because of impaired absorption. These nutrients are important in development of RBCs. The defective RBCs are larger in size as they cannot multiply in adequate numbers. Furthermore, patients with folate and/or vitamin B12 deficiency may also have serious neurological symptoms as these vitamins are essential for proper function on the brain and nerves.

The good news is that with a strict gluten-free diet, the intestinal mucosa will heal and iron absorption will resume. The anemia will get corrected. Iron supplements may be required in some cases to build up the iron stores in the body. If folate and vitamin B12 deficiency is present, adequate supplementation should be provided.

IMPORTANT POINT TO REMEMBER

Think of celiac disease in any patient with iron deficiency anemia. This is especially important when no obvious cause is found and there is no improvement after giving oral iron supplements.

Facts About Celiac Disease

Celiac disease:

- Affects 1% of the population
- 90% of patients remain undiagnosed
- Can occur at any age once gluten is present in the diet
- Can present with extra-intestinal symptoms
- Is a permanent problem: patients do not "outgrow" it.
- Once diagnosed, can be effectively treated with a strict gluten-free diet

Sharing Ideas

Do you have a story to tell about celiac disease? Do you wish to share ideas with others?

You are welcome to send us your submissions which can be published anonymously in the Newsletter. Remember, an interesting story about your diagnosis will educate others about celiac disease and increase awareness of this disorder.

Visit our Web Site

www.celiac.com.pk

Joining Hands



Membership of Pakistani Celiac Society is open to all

Join our free membership on-line at

www.celiac.com.pk

For further information contact

info@celiac.com.pk