Child study associates dental defects with CD

By CLEO ANDERSON

I became interested in the connection between celiac sprue and dental defects shortly after being diagnosed with celiac disease. An article concerning the number of celiacs with dental problems caught my attention as well as the statement that "not many dentists are aware of the connection between celiac disease and dental defects, such as decalcification and enamel abnormalities." This statement was surprising to me since "I" understood celiac sprue to be a malabsorption condition which would cause problems in various parts of the body – so why didn't the dental community understand this connection. Then some months later, I found myself again reading about malabsorption of the necessary minerals and nutrients needed for the body to grow and develop properly. This time it was in *Baillière's Clincial Gastroenterology International Practice and Research*, June 1995.

Take 'Page Five' and the accompanying symptom cards to your dentist. Some undiagnosed Celiac will thank you for that.

This subject just kept coming back to me. So I started looking back at my own experiences and realized that even my dentists over the years had not made any connection to the dental problems I had experienced since early childhood. I had terrible baby teeth with severe enamel conditions. Even as a very small child, I was very self-conscious of them. The dentists told my parents the enamel problems were because I was allergic to penicillin and had been given penicillin when I was about 2 years old.

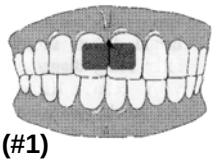
As it turns out, one of my four children has celiac disease and also has problems with his teeth. His baby teeth showed many areas of enamel defect as well as other problems. Two of his children are believed to have the disease and at the ages of 3 and 4 have severe dental problems with many fillings, root canals and caps on molars. Thus, my research on this subject took on a whole new dedication.

Dental problems in general appear to be high among the "celiac population". While attending the past two national conferences for CSA, I have discussed the subject with many celiacs. The consensus seems to be that many celiacs have had dental problems throughout their lives. Most of them were not aware there is a direct connection to their celiac disease. Doctors who have studied and treated celiacs (primarily in other countries) are aware of the connection. Many times, they use the dental records in helping to make a determination if a patient could be considered a celiac (before performing the biopsy).

I asked two pediatric gastroenterologists in Seattle what criteria they looked for when determining if a child was a candidate for the small intestine biopsy. They told me that there were 5 to 6 things they consider: presents of intestinal irregularities (such as severe bouts of diarrhea or constipation); small stature (failure to grow – below the normal percentile); thinning hair; distended abdomen; dental enamel and cavity problems and (sometimes) irritability and mood swings.

From my discussions with dentists and from the experiences related to me by other celiacs, it is apparent that most dentists are not aware of this connection. Even though the connection should be very apparent since the body needs good absorption of the minerals and nutrients to develop properly and this includes the teeth. Celiacs experience malabsorption during the formative months of development and thus the teeth will be damaged as much as the other development of the body.

In 1988, Dr. Lissa Aine and the Finnish Dental Society conducted a study that discovered that enamel defects (hypoplasia) found in systematic patterns correlated significantly with both gluten ingestion and severity of symptoms in children with celiac sprue. The maxillary permanent central incisors (upper two front teeth) were affected in 95% of the celiac children studied who had permanent teeth. (Illus. #1) Both initial gluten ingestion and subsequent gluten challenge prior to the age of 3 years could be clearly seen as enamel defects on the maxillary permanent central incisors. Both dental maturity and skeletal maturity were delayed in celiac children when compared to controls. "Catch-up" growth in dental tissues and bone occurred in celiac children on a gluten-restricted diet. Suggestions for decreasing the adverse effects of gluten ingestion and the subsequent immune response on dental development are given.



(#1)

This study further found that prior to the diagnosis of celiac sprue, malabsorption affects nutrient status and the immune response system is on "red alert". When undiagnosed,

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