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ABSTRACT:

INTRODUCTION:

Food allergens are proteins found in food, and once they are digested they travel through the bloodstream. The proteins travel to places in the body where allergy symptoms are known to occur: the lungs, skin, nose, throat, and our hti og1hntsteinaltravct.

inside the endosperm of the wheat kernel.[2] After the starch gets washed away the gluten is left behind. This protein is best described as a sticky, gummy, elastic substance, which is useful for thickening food, and helping it to rise. It is found in all the different forms of wheat including spelt, kamut, durum, semolina, oats, matza, etc. Gluten is also found in other grains such

intolerance, ataxia, iron deficiency anemia, central and peripheral effects on the nervous system, and internal hemorrhaging. It is also linked to many autoimmune disorders, examples would include nephritis, acidosis, lupus, thyroid disease, myasthenia gravis, rheumatoid arthritis, Addison's disease, and a possible link to the epidemic of T1D. [2, 3, 4, 6, and 7]. CD is diagnosed either through intestinal biopsies, serum antibody tests, or the disappearance of symptoms after gluten is removed from the patient's diet. [3]

Generally speaking, CD and certain gluten associated diseases (GAD's) are T-cell mediated diseases. [7] The most common genetic markers for the disease are human genotypes DQ2 and DQ8. Both the DQ2 and DQ8 are

6] TG2 is the enzyme that helps to chemically bind the HLA to the DQ2 and DQ8 by changing gluten into negative

the pancreas when eating as blood glucose levels are increased. [4, 8] Blood sugar levels are maintained at normal levels because the insulin promotes storage of the excess glucose. Two characteristics of T1D are hyperglycemic (having excess amounts of blood sugar levels) and the occurrence of glycosuria, meaning that the kidneys are sending out extra glucose through the body's urine. [4]

Autoimmune diabetes is insulin dependent. The body's T cells attack and kill its own insulin-producing islet of langerhans β cells. Sixty to eighty percent of the β cells are destroyed by the time symptoms occur. [4, 9]

Although this was diagnosed early in life, it is now also occurring in other age groups.

For example children with T1D have the highest amounts of autoantibodies in their systems. The identify a (occur10())TJ-23.565 -2.435 TD-0.00

diabetes. [12]

The jejunum is the middle section of the small intestines, which connects the ileum and the duodenum. There is a suggestion that T1D may be derived from the intestines because of the inflammation that occurs there. [12]

introduce the gluten. The 7 subjects chosen were all blood relatives to people who have T1D and all contained at least 2 auto antibodies for

transglutaminase in any of the children. [13]

It was surprising that after the gluten elimination portion of the study had been completed, there was no major difference within the islet auto antibody levels. The difference in the test readings had only shifted from measurement $P=0.2$ to $P=0.4$. [13]

Furthermore, any changes the youngsters went through individually did not reflect any significant difference between the times of having gluten present or absent in their diets. [13] Only one child had a significant decrease in the insulin autoantibodies during the wheat-free portion of the study. [13] The child was diagnosed with diabetes once the gluten was re-introduced into the diet. [13] The other six children experienced either an increase in diabetes antibodies or their levels all remained the same during the gluten elimination period. Once the gluten was introduced another one

Along with the same antibody protocol, they also used the same gluten elimination technique. Again the subjects participated in a 6 month diet with

subjects. There were seven patients that had all four antibodies. Six patients had two antibodies, and four patients had three. [15]

Unfortunately, during the first six months, two of the subjects did not follow through with the gluten elimination diet, so they were eliminated from the study. [15] All together three subjects developed diabetes. The 1st subject was diagnosed during the gluten free portion, the next person was diagnosed when the gluten was re-introduced. The third subject was diagnosed with diabetes after the 12 months of diet study had finished. [15] Overall, there were no significant changes to report in the autoantibody titers. [15] When the gluten elimin

The methods used to spot the EMAs and IgAs were biopsy techniques using immunofluorescence indirectly, and UV light immunofluorescence.

When CD was determined, each su

and controls, were both monitored with the same amounts of insulin every day. On their yearly check for C peptides, the levels had not changed for any of the subjects.

Six of the youngsters on the GFD allowed a repeat biopsy test of their

unclear. This was a positive example of the importance that can come from the removal of gluten in a diabetics dietary intake. [16]

According to the 2006 study, the rate of CD in children with T1D across Europe has reached 2-8%, displaying an ever growing epidemic. [17]

The statistical measurements were performed using Intercooled STATA 7, and once again Wilcoxon's Test using the P value system. [17]

The children all had been living with diabetes for at least 3 years, but

changes in their blood levels for HbA1. [16, 17]

Eighteen subjects returned for their intestinal biopsy, after consuming their diet with no gluten for 2 years. The intestinal linings for 14 of the patients had healed completely, and four subjects had partial healing. [17] Those children with partial healing only consumed a partial GFD. [17] Only

Among the patients that were taken to the hospital before turning two years old, there were 11 deaths, and two of them were due to endocrine disorders.

needs to be a greater awareness among the general population of the profound impact that food has on our biological systems.

It is quite beneficial for parents to keep gluten eliminated from their child's diet until they reach 12 months of age. This window of time is crucial for children developing autoimmune disorders, and food intolerances.

A major concern to me in these studies was their number of subjects. In the second study of the literature review, they tested whether or not gluten is the cause of islet autoimmunity. [13] This is an extremely important question that is now debated. The conclusion that they came up

properties, and being economical gluten is added to many di

Conclusion:

Gluten is the protein found inside of the wheat kernel. It is made up of gliadins and glutenins. It is found in all different forms of wheat, rye, and

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