Abstract

Basis: Celiac disease is a systemic autoimmune disease caused by gluten intolerance in genetically predisposed individuals that occurs in both children and adults. The presence of gluten in the diet results in the intestinal inflammation, crypt hyperplasia and villus atrophy in the predisposed individuals and consequently nutrient malabsorption. Celiac manifestations include a diverse spectrum of gastrointestinal and non-gastrointestinal disorders. The only treatment that leads to the normalization of the intestinal mucosa and the disappearance of problems is a lifelong, strictly gluten-free diet.

Objective:

Two objectives were chosen for this work. The first objective was to compare the levels of antibodies and thereby the compliance to the gluten-free diet of patients diagnosed by the biopsy and the non-biopsy procedure. The second objective was to compare the somatic parameters (weight, height and BMI) of all 170 individuals with the celiac disease, with the general population, especially the compliant and non-compliant patients with the general population, and the two groups.

Methodology:

In the practical part of this work, the chosen method was an anonymous collection of data from medical records. All findings that were collected were registered and compared and the statistics were analysed by the use of the x-squared test, single-sample and two-sample KS-test.

Findings:

In a research collection of 170 individuals with the celiac disease, there were 47 boys (27,65 %) and 123 girls (72,35 %). The total of patients diagnosed with the celiac disease through the biopsy procedure was 69 (40,59 %) and 101 patients (59,41 %) were diagnosed by the non-biopsy procedure. The results show, that the percentage of non-compliant patients significantly differs to patients whose celiac disease has been diagnosed by biopsy (26,09 %) and by non-biopsy (59,41 %). The compliant patients had an average percentage of weight 45,78., height 43,53. and BMI 47,8. The non-compliant patients had an average percentage of weight 40,73., height 39,13. and BMI 43,79.

Conclusion:

My findings have shown that the biopsy procedure has increased the patients to be compliant with a gluten-free diet. The negative impact of not following a strict gluten-free diet on somatic parameters did not show a direct comparison in compliant and non-compliant patients, but only indirectly comparing the two groups to the general population and that by weight and BMI. There were no negative impacts to height by not following a strict gluten-free diet, but it did show a negative impact on the disease itself.

Keywords: gluten-free diet, celiac disease, gluten, gluten-related disorders