The evaluation of the pro healthy food used in dietotherapy for patients with inflammatory bowel disease

Patients diagnosed with inflammatory bowel disease (IBD) have high risk for iron deficiency, therefore it seems reasonable to try to find a nutritional solution which would help to prevent this disease.

The aim of this study was to evaluate the effectiveness of the newly designed food products enriched with highly absorbable iron in the treatment of iron deficient patients with IBD.

The effect of food products was evaluated based on 9-weeks randomized double- blind, placebo-controlled trial, in which enrolled 120 persons. The study completed 98 patients, including 51 from bioactive group (BIO) and 47 from placebo group (PL). Individuals from BIO group supplemented their daily diet with food packages containing 10 food products enriched in bioactive components (ferritin or potato juice), while those from PL group received the same package without the addition of a bioactive ingredients. In the study the nutrition discipline was expressed as consumption ratio (WS;%), describing the percentage of the food package intake.

The presented study included: 1) the characteristics of the study population by assessment of: nutritional status and nutritional value of diet, the disease activity, biochemical parameters and quality of life; 2) assessment of the influence of dietary intervention on: nutritional status, biochemical parameters and quality of life of the studied group.

The results of 9-weeks dietary intervention showed that the intake of bioactive food products stabilized the hematological parameters while placebo products caused their significant decrease. Furthermore, it has been reported that C-reactive protein (CRP) level is the most important predictor of the bioactive products effectiveness. Moreover, consumption of bioactive products resulted in a significant improvement in quality of life, especially within the systemic symptoms and emotional function. The body weight and BMI index statistical significance increased both in the BIO and PL group.

Consumption of bioactive products has not affected the severity of inflammation, oxidative stress (assessed as MDA level) and the activity of antioxidant enzyme SOD.

It has been noticed significant decrease in activity of GPx, which may indicate impaired enzymatic antioxidant defense mechanism among people who consume bioactive products.

To sum it up, the newly designed food products enriched with highly absorbable iron will stabilize during 9 weeks of consumption the hematological parameters and can be particularly recommended for patients whose CRP concentration is below 5 mg/l.