The Comparison of SerumVitamins A and E in Irritable Bowel Syndrome Patients with Control Group

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Abstract

Background and objectives: Irritable bowel syndrome (IBS) is one of the most common gastrointestinal diseases. It is a functional bowel disorder characterized by chronic abdominal pain and alternation of bowel habits with no structural abnormality. The prevalence of this disease was estimated 10-20 percent in the world. However, the cause of IBS is still unknown. Regarding to intestinal absorption disorder of nutrients, the malabsorption of vitamin may occur. The aim of this study is to evaluate serum levels of vitamins A and E in IBS patients.

Materials & Methods: This case - control study was done on 94 patients whom their IBS disease were confirmed by a gastroenterologist in Golestan province. The control group was selected from healthy people, who didn't show any signs of digestive problems in past two years. The age and sex were matched with the cases group. Using HPLC method, Fasting blood samples were collected .Followed by measurement of Serum levels of vitamins A and E.

Results: the meanserum levels of vitamin A and E in patients and control group were 57.0 ± 114.8µg / dl and23.8 ± 55.9 µg / dl, and 0.50 ± 0.24 mg / dl and 1.93 ± 1.86 mg / dl, respectively. ($P < 0.05$). in men, the deficiency of Vitamin A and E, were7.70 and 7.10 percent and 6.76 and 3.7 in women. ($P < 0.05$).In general, 1.1percent of IBS patients showed Vitamin A deficiency and 93.6 percent of them had vitamin E deficiency ($P < 0.05$).

Conclusion: In this study, a significant decrease in vitamin E levels was observed in patients with IBS. Due to antioxidant activity of vitamin E, the deficiency of this Vitamin, can increase the oxidative factors leading to intestinal damages and it is expected to decrease the amount of vitamins, subsequently

Keywords: Irritable Bowel Syndrome, Vitamin A, Vitamin E, Gorgan