Abstract

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Effect of a dietary supplement containing blueberry and sea buckthorn concentrate on antioxidant capacity in type 1 diabetic children.

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Abstract

Many studies have shown that oxidative stress plays an important role in the etiology of diabetes and its complications. New methods of treatment for prevention and control of this disease is a priority for the international scientific community.

METHODS: We investigated the relationship between the glycated hemoglobin, C peptide and two antioxidant enzymes. Thirty type 1 diabetic children were treated with a blueberry and sea buckthorn concentrate for two months.

RESULTS: After two months of administering the product to diabetic children, the erythrocyte superoxide dismutase activity was significantly higher ($p < 0.05$). Levels of glycated hemoglobin were significantly lower ($p < 0.05$). The activity of whole blood glutathione peroxidase was moderately increased but the difference was not statistically significant. C peptide concentration was significantly higher after treatment with this dietary supplement ($p < 0.05$).

CONCLUSION: These results suggest that treatment with this dietary supplement has a beneficial effect in the treatment of type 1 diabetic children and it should be considered as a phytotherapeutic product in the fight against diabetes mellitus.

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