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CEILIAK DISEASE AND BONE MASS DENSITY

Vida Mohammdd Parast,¹ Zamzam Paknahad². ¹M.Sc student of Nutrition, Isfahan University of medical Sciences, Isfahn, Iran; ²Professor of Nutrition, Isfahan University of medical Sciences, Isfahn, Iran.

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Background and aims: Celiac disease (CD), an autoimmune disease initiated by the ingestion of food containing gluten. Constant intolerance to gluten cause damages of the small intestinal mucosa. One of reasons malabsorption in children and infants is Celiac disease. About 75% of newly identified patients with celiac disease have low bone mineral density (BMD). Many factors have role in metabolic bone disease such as disturbance in calcium absorption, consume of endogenous calcium, fecal loss, damaged to vitamin D absorption and inflammatory mediators. The gluten free diet (GFD) is only efficacious treatment for celiac disease. Low bone mineral density (BMD) which is a prevalent problem of untreated CD may be restored by gluten free diet.

Methods: We searched the following databases: PubMed, ISI web of science, Google scholar and EMBASE databases by using celiac disease & gluten free diet, celiac disease & bone mineral density & gluten free diet& children to July 2016.

Results: Most of children with CD before treatment with gluten-free diet have reduced low bone mass density. Gluten-free diet caused normal bone mineral density in most of celiac children and adolescent. The duration treatment for restore bone mass has not been obviously. There are not similar time points for all patients; therefore duration of treatment is different. There is relation between age of intervention and recovery bone mineral density. In older children may have slower grades of improvement.

Conclusion: Gluten free diet have important role on bone health. If the diagnosis and management done before adolescence may children with celiac disease achieve normal bone mass.