

【 P2-1 】

아산시 거주 노인여성에서 우유섭취가 골다공증 유병율에 미치는 영향

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Effect of milk consumption on prevalence of osteoporosis among elderly women living in Asan

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The objective of this study is to determine the effectiveness of 4-month milk consumption in the prevention of osteoporosis in elderly women living in Asan. Subjects included 277 women age over 65 years were divided into control (n=111) and milk (n=166) groups. For those in the milk group, one pack (200ml) of partially lactose-digested low-fat milk was provided everyday for 4 months. Each subject was interviewed to assess food intake by a 24-h recall, and fasting blood was obtained for analyzing serum calcium level before and after the milk supplementation. Prevalence of osteoporosis was determined by WHO criteria with calcaneal bone mineral density (BMD) measure by quantitative ultrasound (QUS) on left heel. After 4 months, the nutrient intake levels of control did not change while intakes of energy, protein, calcium, phosphorous, riboflavin, pyridoxin, niacin and folic acid were significantly increased in milk group. No significant changes were observed in anthropometric, BMD and serum calcium levels in both control and milk groups. T-score of milk group, however, was significantly increased after 4 month milk consumption. Prevalence of osteoporosis was increased (27% to 32%) in control group while that of milk group was decreased (32% to 30%). When BMD and t-score changes after 4 months of milk consumption were compared between those with low baseline calcium intake and high calcium intake subjects in the milk group, BMD and t-score were significantly improved in the low baseline calcium intake group. We conclude that one cup a day milk consumption for a relatively short period of 4 month can prevent further bone loss and significantly improve intakes of both macro and micro-nutrients of elderly women.