## عنوان مقاله:

Impact of Bone Mineral Density on the Recurrent Urolithiasis

## محل انتشار:

فصلنامه تحقیقات بین رشته ای در اورولوژی, دوره 1, شماره 1 (سال: 1398)

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## خلاصه مقاله:

Introduction As it seems, patients with urinary stones have calcium metabolism deficiencies which lead to excessive calcium absorption from their bones. This phenomenon may expose these individuals to osteoporosis. This study was performed to evaluate the bone mineral density (BMD) in patients with urinary stones in Iran. Methods This study is an analytical case-control study performed in Sina hospital from March 2016 to January 2018. Twenty-four male patients between the ages of 30 and 50, who had recurrent urinary tract stones were enrolled in the study. The control group was selected from the same age and sex group with no history of urinary stone formation. The diet was similar in the two groups. The sampling method was non-random. Age and BMI were considered as confounding variables. After completing the questionnaire, BMD of the lumbar spine (L4 L2) and the femoral neck were measured. The data were analyzed using linear regression and t-test. Results In both regions, BMD was significantly lower in patients compared to the control group (p-value<0.01). Besides, there was a significant correlation between duration of urinary stone and BMD in each of the mentioned areas (p-value<0.001, r=-0.73 in the lumbar spine, p-value Conclusions Reduction of bone density in patients with recurrent urinary stones may indicate a primary impairment in bone metabolism of these individuals. Considering that 30% of patients have osteopenia and, in general, patients with urinary stones are not allowed to use calcium, it is necessary to eliminate calcium from their diets only after complete analysis.

## کلمات کلیدی:

Osteoporosis, Urine, Stone, Bone mineral density