

RELATIONSHIP BONE MINERAL DENSITY AND RESORPTION OF ALVEOLAR

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Abstract:

Objectives: Osteoporosis is a degenerative disease characterized by reduced metabolic bone mass and bone micro-architect so that the risk of failure. Low bone mineral density is a clinical condition in patients with osteoporosis. The high rate of decline in bone mineral density can lead to tooth loss. The purpose of this study was to determine the relationship of reduction in bone mineral density of the alveolar bone resorption so expect no early prevention of tooth loss in people with osteoporosis and osteopenic.

Methods: The sampling method using a random sampling technique. The sample consisted of 36 subjects included men and women with age group 20-71 years. The tools used to retrieve the data is dual energy x-ray absorptiometry (DXA) to assess bone mineral density reduction. Alveolar bone resorption in maxillary incisors with the technique of panoramic radiographs. Data obtained by measuring bone mineral density at the spine, articulatio radiocarpalis, femoral neck. In bone mineral density T-score (WHO, 2003) as follows: Osteoporosis is a bone mineral density < -2.5 . Osteopenia is bone mineral density between -1 SD and -2.5 . When normal bone mineral density > -1 . Alveolar bone resorption measured if there is loss of bone in the maxillary incisors, alveolar crest more than 2 mm apical to the CEJ toward the limit.

Results: Obtained bone mineral density: normal = 8, osteopenic = 15, osteoporosis = 13. Alveolar bone resorption: no resorption = 8, resorption 2-4 mm = 16 and resorption of > 4 mm = 12. Test performed correlation analysis with SPSS version 21, the results of the study there is a relationship between age and bone density value of $r = 0.378$, between age and alveolar bone resorption value of $r = 0.442$, between bone mineral density and alveolar bone resorption $r = 0.368$.

Conclusion: There is a relationship between bone mineral density and resorption of alveolar and associated with increased age.

Key word: bone mineral density, alveolar resorption