Prevalence of osteopenia and osteoporosis in Thai patients at Vajira hospital.

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Abstract

Background and Objective: Osteoporosis is a disease in which the density and quality of bone are reduce, increases risk of fracture. However, studies that report prevalence of osteoporosis and osteopenia in Thai population has not been updated. Also, studies in Thai male patients and in patients over 80 years of age have little research. The research team believes that more up-to-date information should be studied. The objective of this study was to determine the prevalence of osteoporosis and osteopenia in Thai population that visited Vajira Hospital. The information can be used as a guideline for the surveillance of osteoporosis in the future.

Methods: Collect basic data for each patient from the PACS system. Then, measure BMD in lumbar spine L1-4 , neck of femur and total hip from DXA, export the data and save to excel file. Then, the data were statistically analyzed and presented research data to determine the prevalence of osteoporosis and osteoporosis.

Result: Among 6517 participants divided into 5893 females and 624 males, age 50-90 year, and evaluated for bone mineral density using Dual energy X-ray absorptiometry at nuclear medicine department in Vajira hospital from 2017 to 2021.The prevalence of Osteoporosis over 5 years was 41.6%, comprising the prevalence of women 43.3% and the prevalence of males is 25%. The prevalence of osteoporosis increases with increasing age, The bivariate analysis showed that osteoporosis more common in females than males with significantly P-value<0.05 (OR=2.30; 95% CI=1.90-2.77). The prevalence of Osteopenia over 5 years was 44.1%, comprising the prevalence of 43.8% of females and 46.8% of males.

Conclusion: The present study demonstrate descriptive BMD data, shows the prevalence of osteoporosis and osteoporosis in males and females. The present study show prevalence of osteoporosis increases with increasing age, found in females 2.3 times more than males.

Discussion: The prevalence of osteoporosis in all examined areas increased with increasing age. In males and females, osteoporosis was found in the femoral neck area the most. In females, osteoporosis occurs twice as much as in males. This differs in many studies due to health policy. Differences in exercise and life environment