Journal of Orthopaedic Surgery 2012;20(2):205-8

The male osteoporosis risk estimation score and the osteoporosis self-assessment screening tool for Indonesian men

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ABSTRACT

Purpose. To evaluate the male osteoporosis risk estimation score (MORES) and the osteoporosis self-assessment screening tool (OST) score as a means of screening for osteoporosis in men.
Methods. Records of 113 Indonesian men aged 50 to 91 (mean, 71) years who underwent evaluation of bone mineral density (T-score) using Dual-energy X-ray absorptiometry were retrospectively reviewed. The MORES was determined by 3 osteoporosis risk factors: age (in years), body weight (in kg), and chronic obstructive pulmonary disorder. A MORES of ≥6 indicated osteoporosis and corresponded to a T-score of ≤-2.5. The OST score was calculated as body weight (in kg) minus age (in years) multiplied by 0.2. An OST score of ≤2 indicated osteoporosis and corresponded to a T-score of ≤-2.5. Sensitivity, specificity, and positive and negative predictive values of the MORES and the OST score were determined.
Results. Respectively for the MORES and the OST score, sensitivity values were 100% and 74%, specificity values were 7% and 41%, positive predictive values were 25% and 28%, and negative predictive values were 100% and 83%. Using receiver operating characteristic curves, the area under curve was 0.535 for the MORES and 0.574 for the OST score.
Conclusion. The MORES and the OST score should be used together to screen for osteoporosis in men.

Key words: *absorptiometry, photon; bone density; osteoporosis*

INTRODUCTION

Osteoporosis in men is under-recognised and thus undertreated.[1] In the United States, by 2030 the total male population aged >65 years is expected to double in comparison to today's number.[2] The prevalence of male osteoporosis will increase by almost 50% in 15 years.[3] The number of hip fractures secondary to osteoporosis is expected to increase to 13 million in 2050, with 31% (about 4 million) being in men.[4,5] Osteoporosis is a major predictor of fractures.[6,7]

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