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Ultrasound in tracking bone quality from the perspective of osteoporosis

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Objectives: The overall objective of the study was to define the importance of ultrasound (US) phalanx as part of crawler respective bone quality by osteoporosis and specifically establish ultrasonometry by diagnostic tests such as bone quality, according to age, set a quality nomogram bone (UBPI) view by the ultrasonometry and build bone quality normal curve according to age setting the cut off of pathological risk.

Material & Methods: A descriptive, analytical, cross. Attended the screening 932 women, of these, 125 were selected for agreeing to participate and fit the inclusion exclusion criteria. They were oriented to addressing the Women's Maternity Hospital Dona Iris to achieve the ultrasonometry tests phalanx and bone densitometry.

Results & Discussion: When US is used to evaluate the phalanx in UBPI parameter in relation to the column DEXA test sensitivity was 80% in Group 1 and 100% for G2, G3 and G4. In relation to the femur DEXA test sensitivity was 90% and G1 was 100% G2, G3 and G4, when analyzing the 50th percentile, there was a significant inverse correlation showing that the greater the age, the greater the loss of bone quality. This result includes an early decline, still starting at the woman's fertile period. When the disease risk was calculated the results were, for the age group 30-39 years the average: 0.68 and SD = 0.23; 40-49 years, average of 0.64 and SD = 0.28; 50-59 years, mean and SD: 0.54 and 0.37 respectively and finally, age > 60 years, mean and SD: 0.32 and 0.30. These data cannot be compared, since there are no similar studies and DEXA data were not used for comparison, because it does not assess bone quality.

Conclusion: The phalanx of ultrasonometry proved to be a highly effective method as osteoporosis tracker element, regarding the evaluation of bone quality parameter that evaluated in this study

Biography

Sara Rosa de Sousa Andrade is a Physiotherapist, PhD in Health Sciences, MA in Health Sciences, specialist in Neurology and Family Health Strategy. She is currently Professor at Faculdade Estacio de Sa and Member of the Volunteer on the Ethics and Research Committee of Dona Iris Hospital and Maternity.

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