Abstract

Background: Osteoporosis is one of the most important public health problems involving a high percentage of costs in the medical care system. Reliable diagnostic techniques for an early detection of bone deterioration and studies of factors that influence its development in menopausal women are crucial. The aim of the study was to determine the relationship between bone microarchitecture and anthropometry in climacteric women. Methods: Women were recruited at the Menopause Clinic, University Hospital of FMRP/USP, and submitted to anthropometry and to the evaluation of bone quality (Ultrasound Bone Profile Index, UBPI) and quantity (Amplitude-dependent Speed of Sound, AD-SoS-) by phalangeal quantitative osteosonography (DBM Sonic BP). Descriptive analysis of the data was reported and a multiple linear regression was performed using the software SAS® 9.0. Results: 71 patients aged 58 ± 7 y were studied: 28% had BMI 18.5-24.9 kg/m2, 35% BMI 24.9-29.9 and 37% BMI > 30. Mean AD-SoS was 2059±79 m/s and mean UBPI was 0.67 ± 0.13. Considering AD-SoS the dependent variable, there was no statistically significant relationship between age (p = 0.20), BMI (p = 0.76), fat mass by bioelectrical impedance (p = 0.42) and by anthropometry (p = 0.95). The variables had very low effect on the UBPI when it was considered the dependent variable. Conclusions: The relation between bone microarchitecture and the anthropometry of the women studied shows that, the greater the bone quantity, the better the anthropometric parameters, without statistically significance. This work was a cross-sectional study on a small sample that needs to be validated in a prospective design.

Keywords


Anthropometric parameters.