

Bone Mineral Density Measurements Of Distal Radius In Saudi Arabian Females

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Summary

A survey using Gammadensit x-ray bone mineralometer was conducted on 150 Saudi Arabian postmenopausal (PM) females and on another group of 150 females of menstruating age of around 30 years as the group with peak bone mass (PBM). The minimum age in the PM group was 44 years and maximum was 71 years (mean 54.08 years), SD +/- 7.02, whereas for the PBM group, the mean age was 29.15 years (range 24 to 33). The bone mineral density (BMD) for the PM group was 0.310 g/cm(2) minimum and the maximum was 0.546 g/cm(2) (mean 0.440 g/cm(2)). In the PBM group, the mean BMD was 0.660 g/cm(2). Compared to Western females, the PM group BMD was 21% lower and the Saudi PBM group was 29% higher than in Western females of the same age and sex. The BMD of rural Saudi females was 0.479 g/cm(2) as compared to 0.359 g/cm(2) in the urban population. In females who had borne more than 10 children, the BMD was 0.483 g/cm(2), and was 0.354 g/cm(2) in females who had fewer than five children. There was no statistical significance in rural versus urban and less than or equal to 5 versus greater than or equal to 10 children (P value was < 0.18 and < 0.13). This study concludes that BMD of the PM Saudi females is lower than that of the Western females of the same age, making them more osteoporotic with a higher risk of osteoporotic-related fractures.

References:

1. *LACN LAB SCI, 1993, REF VAL DIST RAD PAR
2. ALNUAIM AA, 1993, S OST 14 15 DEC

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<http://www.kfupm.edu.sa>

3. COOPER C, 1992, OSTEOPOROSIS INT, V2, P285
4. CUMMINGS SR, 1989, ARCH INTERN MED, V149, P2445
5. CUMMINGS SR, 1993, LANCET, V341, P72
6. DALEN N, 1974, ACT ORTH SC, V45, P170
7. EINHORN TA, 1988, HOSPMEDICA, V11, P45
8. ELDESOUKI M, 1991, ANN SAUDI MED, V11, P620
9. ELDESOUKI M, 1995, SAUDI MED J, V16, P30
10. MASUD T, 1993, BRIT MED J, V307, P172
11. SADATALI M, 1992, 1 WORLD ORTH C MUSC
12. SADATALI M, 1993, ANN SAUDI MED, V13, P272
13. SCHAPIRA D, 1988, J ROY SOC MED, V81, P461
14. WHITE MK, 1984, INT ORTHOP, V7, P209

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