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Comparison of prevalence of osteoporosis and the association between osteoporosis and selected risk factors among premenopausal and post-menopausal women attending a health camp

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Key words

osteoporosis, premenopausal, postmenopausal, bone mass density (BMD)

Objectives

Comparison of prevalence of osteoporosis and the association between osteoporosis and selected risk factors among premenopausal and postmenopausal women attending a health camp.

Method

Osteoporosis screening was conducted at a health camp held in Base Hospital Panadura. Participants included health staff and lay women aged 27-81 years residing in Panadura. Data was collected using an interviewer-administered questionnaire by trained staff, and weight and height measurements were made. Heel bone mass density (BMD) was obtained by trained technicians using Achilles EXPII bone ultrasonometer.

Results

305 women were screened. The mean (+/-SD) age was 51.42(±9.33) years. Around fifty-four percent (54.1%, n=165) of women were post-menopausal. The mean (+/-SD) age at menopause was 48.17(±4.20) years. Mean (+/-SD) T score of heel BMD in pre and postmenopausal women were -0.46 (±0.96) and -1.22 (±0.85) respectively. The prevalence of osteoporosis and osteopenia were 1.4% and 24.3% in premenopausal women and 3.0% and 59.4% in postmenopausal women respectively. Age, age at menopause, number of pregnancies, physical exercise, height, highest level of education, occupation, monthly income, previous fracture, parent fractured, current smoking, glucocorticoids, rheumatoid arthritis, secondary osteoporosis, alcohol consumption and family history ($p>0.05$) showed no association with BMD whereas weight ($p<0.05$, $r = +0.223$) and BMI ($p<0.05$, $r = +0.262$) showed an association with BMD in pre-menopausal women. But only the age showed a negative medium ($p<0.05$, $r = -0.208$) association with BMD in post-menopausal women.

Conclusions

Risk of osteoporosis in premenopausal women is influenced by weight and BMI whereas only the age is significantly affecting on osteoporosis in post-menopausal women.