

Osteoporosis continues to be a public health problem both in developed and developing countries. There are effective measures to prevent its progress into life debilitating fractures. Hip fracture, the most dramatic clinical squeal of osteoporosis, is one of the most common and potentially devastating injury. Early detection by measuring bone density makes treatment relatively

inexpensive and almost always successful, and leads to a marked decline in the

number of women who develop osteoporosis.

This study on osteoporosis was carried out to determine the prevalence and risk factors for osteoporosis among postmenopausal women aged 45 years or more in the Gampaha district of Sri Lanka. Using multistage stratified cluster sampling technique, a sample of 1229 postmenopausal women was selected for the community based cross sectional prevalence survey.

Information was obtained from respondents using an interviewer-administered

structured questionnaire. Postmenopausal women were screened for osteoporosis using the Achilles heel scanner and were categorized according to different bone mineral density based on the T score. Strict standardization of technique described in methodology was carried out throughout the study to ensure quality of information.

The prevalence of osteoporosis was 27% (95%CI 24 -30). The trend analysis in advancing age groups showed that the differences of the age specific rates were highly significant (p<0.0001).

The findings of the survey showed that the prevalence of osteoporosis was significantly higher among postmenopausal women who were in the low

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income group (31%, p<0.01), low educational group (26%, p<0.05), low social class (29%, p< 0.001), unemployed housewives (28%, p<0.05) and underweight women (BMI level less 18.5) (29%, p<0.05).

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There was also a negative association between bone mineral density and duration of the postmenopausal period (r=-0.379, p<0.01).

A community based case control study was also carried out to study the

association between selected risk factors and osteoporosis. A sample of 200 cases and 200 controls were selected randomly from the women who participated in the prevalence survey.

The risk factors identified by bivariate analysis were low education (OR=1.72, 95%CI: 1.09-2.68), being exclusively housewives (OR=2.03, 95% CI: 1.26-3.3), low social class (OR=2.10,95%CI: 1.26-3.5), underweight (OR=4.04, 95% CI: 1.79-9.4), physical inactivity (OR = 2.5,95%CI: 1.54-4.18) and using one or more selected drugs (OR = 2.72, 95% CI: 1.11-6.68).

After adjusting for confounding factors, the risk factors identified by

multivariate analysis were exclusively housewives (OR= 2.5,95% CI:1.55-3.93), low education (OR= 1.87,95%CI:0.91-1.84), physical inactivity (OR= 3.06,95% CI:1.92-4.87) and use of one or more selected drugs (OR= 1.23,95% CI:1.03-1.46) and underweight (OR=2.52,95% CI:1.57-3.62).

The findings of this study showed that osteoporosis was a public health problem in the Gampaha district. In the existing health system, there is no special preventive programme for osteoporosis. Therefore, the health administrators and planners should direct maximum efforts towards the need

for a community-based approach in osteoporosis prevention. Primary prevention during adolescence and middle age should be encouraged.

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