

Prevalence of Osteopenia and Osteoporosis in female Kashmiri population above 40 years of Age

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Abstract:

Objectives: To find the incidence of osteopenia and osteoporosis and their relationship with age, parity and menstruation in women above 40 years of age in our set-up

Method: 100 non-pregnant women attending the OPD of a tertiary care centre, L.D. Hospital Srinagar from January 2013 to December 2014 had their B.M.D estimated by D.E.X.A scan and the results were analyzed.

Results: It was noted that after the age of 60 years, there was an almost 100% incidence of either osteopenia or osteoporosis. In the age-group of 40-65 years, the incidence of osteopenia was 34% and osteoporosis is 8%.

Conclusion: It was thus concluded that a substantial female population has osteopenia or osteoporosis after the age of 40 years.

I. Introduction

Osteoporosis is the most common metabolic disorder. The reduction in bone mass results from an imbalance in the processes that influence the acquisition and maintenance of the skeleton mass.

Osteoporosis is defined as bone mass which is 2.5 Standard deviation (SD) lower than that in young adult of same sex and nationality. Bone mineral density (BMD) between 1SD AND 2.5 SD lower indicates osteopenia¹

The proportion of elderly population is rapidly increasing throughout the world these people are more prone to osteopenia and osteoporosis. It is a silent epidemic and is associated with major disability and dependence and social and economic problems² DEXA (dual energy x ray absorptiometry) is a screening test for people who are prone to osteoporosis. This randomized study has been conducted in Kashmiri women above the age of 40 years.

Aims And Objectives

1. To find the prevalence of osteopenia and osteoporosis in Kashmiri women above the age of 40 years.
2. To know the relationship of osteoporosis and osteopenia with age, parity and menstruation in women above 40 years.

II. Material And Method

100 non pregnant females above 40 years of age attending opd clinic of our hospital LalDed Srinagar were randomly enrolled for this study from jan -2013 to dec-2014. None of our patients was on any type of HRT (hormone replacement therapy). All the cases in our study were well informed about the study.

After proper history taking, examination and base line investigations, BMD was measured by DEXA. Patients with other medical disorders were excluded from the study.

III. Results And Observations

The observation was made in 100 non-pregnant women above 40 years of age in terms of age, parity and menstruation for BMD.

Table 1 Age distribution

Age in years	Number	% Age
41-45	25	25
46-50	34	34
51-55	20	20
56-60	10	10
61-65	05	05
> 65	06	06
TOTAL	100	100%

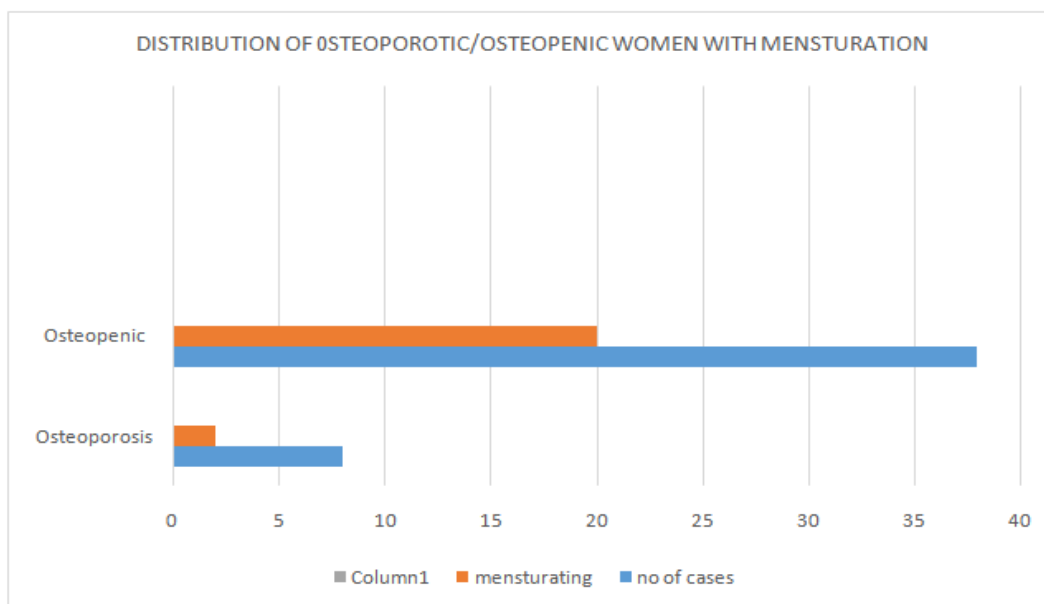
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Maximum number of women ie 34% were in age group of 46-50 %.Only 6% of women were above the age of 65 years

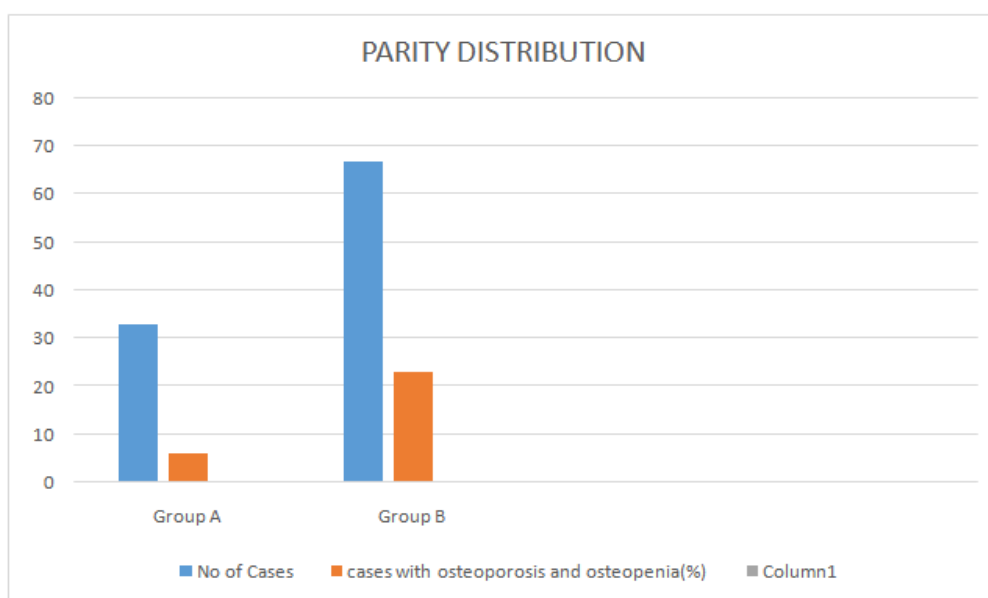
Table 2 Prevalence of osteoporosis and osteopenia in various age groups

AGE in years	Number (%) of cases	Cases of osteopenia	Cases of osteoporosis	Osteopenia And steoporosis(%)
41-45	25	07	nil	28
46-50	34	15	02	50
51-55	20	06	01	35
56-60	10	03	01	40
61-65	05	03	02	100
>65	06	04	02	100
Total	100	38	08	46 %

None of the women in age group of 41-45 years was found to be osteoporotic.
In the age group of 46-50 years 15 out of 34 women were found to be osteopenic and 02 had osteoporosis .



Of the 08 osteoporotic women 02 were still menstruating (25%)
Indicating good estrogenic activity. Similarly out of 38 osteopenic women 20 were still menstruating(53%)



Group A :Nullipara, Para -1 or Para -2 (33%)
Group B: > Para -2 (67%)

IV. Discussion

The worldwide incidence of osteopenia and osteoporosis is increasing. By the year 2035 the maximum number of osteoporosis cases in the world will be in India and China³.

In our study of 100 women 38 were found to be osteopenic and 08 were found osteoporotic. This is comparable to the study conducted by AshwiniBhale Rao Gandhi et al². Out of 08 osteoporotic women 25% were found in age group of 46-50 years and 50% were found in age group of above 61 years .

Our study shows that above the age of 60 years there is almost 100% incidence of either osteopenia or osteoporosis. Of the 08 osteoporotic women 02(25%) and 2 out of 38 osteopenic women (53%) were still menstruating. 06 out of 33 women P0-2 (Group A) were found to have osteopenia or osteoporosis (18.2%). 23 out of 67>P2(Group B) were found to have either osteopenia or osteoporosis (34.3%) Thus calcium supplementation should be given early in pregnancy and lactation. Extended lactation (> 6 months) is also associated with bone loss^{4,5} The risk of developing osteoporosis is more in females. In India, its incidence was found to be in the ratio of 4:6 in men and women.⁶

V. Conclusion

A substantial female population in Kashmir has osteopenia and osteoporosis after the age of 40 years. Tools like DEXA scan can be used to screen women who are prone to osteoporosis for a better earlier treatment.

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