

## RISK FACTORS OF POST MENOPAUSAL OSTEOPOROSIS

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Osteoporosis ranks as one of the 5 costliest diseases of aging after diabetes, hyperlipidemia, hypertension and heart disease. The disease is characterized by low bone mass and micro-architectural deterioration of bone tissue. Post menopausal osteoporosis is a major public health problem and is a common cause of morbidity and mortality in women. It is reported that osteoporosis fractures occur 10-20 years earlier in Indians as compared to Caucasians. In the Indian Scenario, 50% women have osteoporosis and accounts for 30 million women.

### OBJECTIVE:

To find out the risk factors of post menopausal osteoporosis in women attending the orthopedics OP and ward during November, 2007.

### METHODOLOGY:

Study Design: Case Control Study.

Study Setting: Orthopedics OP and wards, Medical College Hospital, TVM.

Study Groups: Cases :52 Post menopausal women with osteoporosis.

Control: 101 Post menopausal women without osteoporosis.

### Inclusion Criteria:

Cases: Post menopausal women with osteoporosis as diagnosed by x-ray by the specialist.

Sample size: Case : 52 Control: 101

Data was collected using questionnaire method. Data was collected on age of menopausal, physical activity, No. of delivery, family history of osteoporosis, previous history of fractures, history of hypothyroidism, history of Rheumatoid arthritis, frequency of intake of following food items – ghee, curd, banana, fish, beans, green leafy vegetables, coffee, no. of glasses of milk/day.

### RESULTS AND DISCUSSION:

By using odds ratio it was found out that following are risk factors for development of postmenopausal osteoporosis.

1. Surgically induced menopause (OR = 20.09 95% CI 2.57 – 170.3)
2. Previous history of fractures as an adult (OR = 3.97, 95% CI 2.97 – 3.31)
3. Hyperthyroidism (OR = 3.02, 95% CI 2.4 – 3.79)
4. Family history of osteoporosis (OR = 18, 95% CI 5.23 – 67.6)
5. Rheumatoid Arthritis (OR = 3.19, 95% CI 2.51 – 4.06)
6. Intake of more than 2 cup of coffee (OR: 8-3, 95% CI 0.9 – 76.5)

By logistic regression, it was found that 23.7% of postmenopausal osteoporosis can be explained by surgically induced menopause (Adjusted OR = 18.28 P = .009) and family history of osteoporosis (Adjusted OR = 17.65, P = .000)

RECOMMENDATIONS:

1. Recommend bone mineral density testing to all women aged 65 and older.
  2. Women attaining menopause surgically should be counseled about risk factors and to avoid it.
  3. Recommend regular weight-bearing and muscle strengthening exercise and to reduce risk of fall.
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