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Nutrient intake of menopausal women suffering from osteoporosis

VIRGINIA PAUL AND SHALINEE

ABSTRACT

Nutritional status of 60 menopausal women suffering from osteoporosis was studied. Respondents were selected from different Government and Private hospitals of Lucknow city and divided into three income groups – Group I (below Rs. 5000/-), Group II (Rs. 5000-10000/-) and Group III (above Rs. 10000/-). Maximum number (n=25) was from Group II, (n=20) from Group I and (n=15) from Group III. Demographic data, anthropometrical measurements, clinical findings-blood calcium and urine calcium were recorded. 24 hours dietary recall was done for calculation of nutrient intake and assessing the nutritional status. Respondents belonging to income Group I were taking minimum amount of calcium rich products. Results showed that maximum difference was observed in RDA value of energy, calcium (200 to 300mg/day) and phosphorus intake was maximum in Group I and minimum in Group III. Statistically it was proved to be significant ($P < .05$). In all the three groups, the intake of remaining nutrients-protein, fat, carbohydrate ($P < .05$) was comparable with ICMR standards. Complication of disease leads to loss of mobility and physical activity leading to loss of appetite and poor health.

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Key words : Menopausal women, Osteoporosis, Nutrient intake, Calcium, Nutritional status

INTRODUCTION

The first International Congress on menopause defined menopause as that phase in the aging process of women that marks the transition from the reproductive stage of life to the non-reproductive stage (Utian, 1983). The age at which menopause is reached varies with geographical, racial, nutritional and other factors. The age at menopause is around 49 to 50 years in most developed countries. Osteoporosis affects from 15 to 20 million people including 1 out of every 3 people over the age of 65. It is 8 times more prevalent in women than in men. In India, it varies from 44 to 50 years. In some women it sets in prematurely even before 40 years, or it may be delayed to 53 years (Singh and Wyon, 1983).

Oestrogens have a protective effect on the bones as they influence calcium absorption from the gut and reduce bone loss. With the fall in oestrogen levels after menopause, there is an increased loss of bone and calcium with diminished absorption of the calcium resulting in osteoporosis and increased risk of fracture of the distal radius, vertebrae and proximate femur (Unnikrishnan and

Rajaratnam, 2000). Decalcified bones break more easily than normal ones and bone atrophy progresses more rapidly in women after menopause than in men (Widdowson, 1980). Estimates of the prevalence of osteoporosis range from 15 per cent to 50 per cent in India. The definition of osteoporosis at Consensus Conference stated that, it is a disease characterized by low bone mass micro-architectural deterioration of bone tissue leading to enhanced bone fragility and a consequent increase in fracture risk. Calcium is one of the paramount importance and its adequate intake throughout life is necessary to maintain good health and reduced hip fractures (Matkovic, 1979). Osteoporosis can be prevented in post-menopausal women by balanced diet rich in calcium, estrogen supplementation, vitamin D supplementation and regular exercise. An estrogen deficient woman has a higher calcium requirement and unless she raises her calcium intake after menopause she will continue to lose bone (Nordin, 1991).

The present study was carried out with an objective to assess the nutritional status of menopausal women.