The incidence of osteoporotic hip fracture in 3 years fallow up of Iranian Multicenters Osteoporosis Study (IMOS)

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Abstract

Introduction: Osteoporosis is a major problem of health care delivery services, both in developed and developing countries. Osteoporosis has bean defined as a disease characterized by low bone mass, which leads to enhanced bone fragility and increased fracture risk. Osteoporotic Fractures are one of the most common causes of disability and a major contributor to medical care costs in many regions of the world. There is substantial variation in the incidence of hip fracture in different regions. It has been projected that by the year 2050, 50% of all hip Fracture in the world will occur in Asia. Unfortunately there is not any information about incidence of hip fracture in Iran. The results of Iranian Multicenters osteoporosis study (IMOS) has shown 70% women and 50% men older than 50 years and older have osteoporosis or osteopenia. Thus this study performed to determine the incidence of osteoporosis hip Fracture in 3 years follow up of IMOS in Tehran.

Materials and Methods: All the patients in the IMOS study who were 50 yr and over were selected to fill the questionnaire. The questions were about the incidence of fracture in 3 year after the beginning of IMOS and some demographic factors. Data analysis was performed with SPSS (11.5). Student T- test was used to determine the differences in mean values, and for quantitative measures χ^2 was used. P- Values less than 0.05 were considered significant.

Results: The results of this study suggest that hip fracture incidence rate increase exponentially with aging and about 90.9 percent of all hip fractures occur in women. There is lower incidence of hip fracture in Tehran population compared to the Western Europe and North American population. It is unclear whether genetic or environment factors contribute to such variation.

Conclusion: Correlation between hip fracture and osteoporosis in hip region can help in prediction the future fracture due to osteoporosis base on the results of bone densitometry.

Key Words: Incidence, Hip fracture, Osteoporosis, and IMOS.

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