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Determination of Risk Factors Associated with the Occurrence of Osteoporosis

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ABSTRACT

The objective of the present study was to find out the prevalence of osteoporosis associated risk factors among various age groups of women. Osteoporosis is illustrated by low bone mass and weakening of bone tissue, which may lead to increased bone tenderness and enhanced fracture risk despite the prevalence of osteoporosis, tendency of osteoporosis is very high in residents with various signs and symptoms as reported earlier. Unfortunately, in Pakistan there is much lack of awareness regarding this rapidly increased disorder. There is lack of education regarding such health disorders due to lack of health awareness programs such as patient awareness programs for both Urban and rural areas. This was a cross sectional study conducted from April 2015 to May 2015. A total of 100 individuals were selected randomly among age groups varying from 33-70 years old women living in various areas of Karachi, Pakistan. Specifically developed questionnaire were used for the collection of data. At first they inquired about their lifestyle and associated risk factors such as lack of interest of physical activity, weak muscles and low dietary calcium and vitamin D. The results showed that among 100 individuals the highest risk factors as observed are the individuals who have low dietary calcium and vitamin D are 52%, while individuals who have lack of interest of physical activity are 77% and individuals who have joint pain are 79%. Lack of understanding constitutes a significant problem requiring serious health disorders.

Keywords: Osteoporosis, Risk Factors

INTRODUCTION

Osteoporosis is illustrated by low bone mass which may lead to bone tissue deterioration and raised bone fragility. It results due to the deficits in usually composed bone. Osteoporosis influences millions of people and results in affecting health setups and societies globally.

Osteoporosis has been categorized into primary

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osteoporosis (it is not associated with other chronic illnesses but it is related with aging and diminished gonadal function, declined level of estrogen while secondary osteoporosis (is caused by different other health related problems). Type I osteoporosis (is due to reduced endogenous estrogen), Type II osteoporosis (shows the influence of prolonged remodeling efficiency) (Alekel et al., 2000). It decreases both quality and quantity of life. It raises morbidity and mortality. It causes vertebra to collapse.

Different signs include pain in back and Kyphosis particularly (Lips and van Schoor, 2005). The most frequent cases of osteoporosis in females are due to less estrogen levels. The associated risk factors are common in both men and women. Risk factors including diet having low calcium level and vitamin D or patients having an eating disorder (Johnell et al., 2004). The main purpose of this study was to identify individuals with risk factors of osteoporosis especially primary osteoporosis among women.

MATERIALS AND METHODS

The primary focus of this research survey was to determine the prevalence of osteoporosis mainly primary osteoporosis among various age groups in women. This cross sectional study was carried out in Karachi quantitatively on the population of 100 individuals of women living in various areas of Karachi. Most of the women were housewives, although some of them were working women. The participants were selected randomly living in different areas of Karachi on the basis of age and gender varying from 33-80 years old women. Specifically designed questionnaire was used to collect the data. Furthermore, some parameters were analyzed associated with primary osteoporosis such as living lifestyle, being very thin, family history of osteoporosis, diet having low levels of calcium and vitamin D and lack of exercise are specifically determined in this study.

RESULTS AND DISCUSSION

In this study prevalence of osteoporosis risk factors were observed specially individuals having primary osteoporosis. Osteoporosis is one of the growing public health problem which results in a huge load to society. Studies reported that there is a need to increase awareness in health professional's which helps to reduce the occurrence of osteoporosis in individuals (Kanis et al., 1994; Cooper et al., 1992). In this study we observed various risk factors among female of age group 33 - 80 years. Among them the highest risk factors were low dietary calcium and

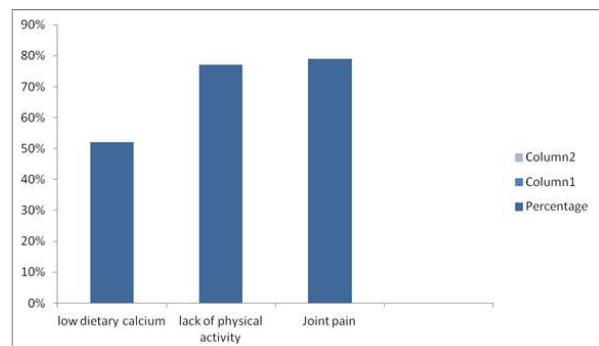
vitamin D, lack of exercise and weak muscles. The individuals who have low dietary calcium and vitamin D are 52%, while individuals who have lack of interest of physical activity are 77% and individuals who have joint pain are 79%.

The above statistical analysis show the highest risk factors highlighted in this study which were lack of physical activity i.e. 77%, low dietary calcium and vitamin D i.e. 52% and joint pain i.e. 77%.

CONCLUSION

Present study showed that women should be offered with sufficient health education as women are at high risk of osteoporosis and also different interventions should also be considered which may decrease their possibilities of attaining the disease.

Figure 1



REFERENCES

1. Alekel DL, St Germain A, Peterson CT, Hanson KB, Stewart JW, Toda T. 2000. Isoflavone-rich soy protein isolate attenuates bone loss in the lumbar spine of perimenopausal women. *Am J Clin Nutr.* 72:844-852.
2. Lips P and van Schoor NM. 2005. "Quality of life in patients with osteoporosis," *Osteoporosis International.* 16 (5): 447-455.
3. Johnell O, Kanis JA, Odén A, et al. 2004. "Mortality after osteoporotic fractures," *Osteoporosis International.* 15(1): 38-42.

4. Kanis JA, Melton III LJ, Christiansen C, Johnston CC and Khaltsev N. 1994. "Perspective: the diagnosis of osteoporosis," *Journal of Bone and Mineral Research*. 9 (8): 1137–1141.
5. Cooper C, Campion G and Melton III LJ. 1992. "Hip fractures in the elderly: a world-wide projection." *Osteoporosis International*. 2 (6): 285–289.