PROBLEMS RELATING TO OSTEOPOROSIS DURING POSTMENOPAUSAL PERIOD

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Introduction: Osteoporosis is a systemic skeletal disease characterized by low bone mass and micro architectural deterioration of bone tissue, with a consequent increase of bone fragility and susceptibility to fracture[1]. Postmenopausal osteoporosis (PMO) is asymptomatic for a long time and clinically detected only at the stage of fractures is the most common form of osteoporosis[2]. PMO problems in Kazakhstan are relevant, due to a sharp increase of elderly and senile age population, so the number of women in the postmenopausal period is growing. According to the surveys the average life expectancy in the Kazakhstan is 72.43 years for women. It is expected, that by 2050, 41% (6.2 millions) of the population will be people 50 years and older and 14% (2 millions) - 70 years and older. Among the main problems relating to PMO in Kazakhstan are lack of osteoporosis problem recognition at the state level, absence of epidemiological research centers to study the real osteoporosis prevalence, low awareness of population and doctors about the problems relating to the osteoporosis[3]. Currently, there are no specific symptoms and markers of the PMO, which are indicators for consultation of a doctor[4].

At present, PMO and its complications remain an important problem of modern medicine all over the world. It entails significant socioeconomic problems for the healthcare system, as accompanied by considerable morbidity, disability, decrease quality of life and leads to mortality increase. WHO Director-General, Dr. Gro Harlem Brundtland: “Recognizing osteoporosis as a global problem, the World Health Organization sees the need to create a global strategy for osteoporosis prevention and control, focusing on three main areas, such as: prevention, treatment and life expectancy”[5,6].

Materials and methods. An initiative study on problems associated with osteoporosis was carried out during two years. At the initial stage the aim was to identify potential risk factors for development of the osteoporosis during the postmenopausal period and PMO relationship with existing concomitant diseases.

435 patients from the Endoprosthetics Department of the City Clinical Hospital No.4 of Almaty were included into the study in the period from 2014 to 2016. An average bone mineral density (BMD) was measurement by the T-test, anamnesis was assessed retrospectively.
Results. The recruited patients were divided into 3 age groups. The 1st group included women aged 50-59 years, the 2nd group - 60-69 years, and the 3rd - 70 and above. Average bone mineral density (BMD) was as follows: in the 1st group - T = -2.3; the 2nd group - T = -3.4; the 3rd group - T = -3.6. Osteopenia degree was fixed for the 1st, 2nd, 3rd group, and the T-test index corresponded to osteoporosis.

The most common comorbidities were arterial hypertension and ischemic heart disease: 42.7%, 52.5% and 58.3%, correspondently. Rheumatoid arthritis was diagnosed in 15.6% of the cases in the 1st group, 18.7%- in the 2nd and in 19.4% of the cases in the third group. Diabetes mellitus prevalence was as follows: 16.8%, 24% and 19.4%, correspondently.

Deforming gonarthrosis of 3-4 degrees and deforming coxarthrosis of 3-4 degree were the most common diseases relating to the osteoporosis. It was revealed that the deforming gonarthrosis in the 2nd group of patients aged 60-69 years was diagnosed in 54.8% of cases, which is 2 times higher, compared to the other age groups. Deforming coxarthrosis reached 48.5% in the third group of patients over the age of 70, which was almost in 2 times higher compared to the other studied groups. According to the results of this study, it can be assumed that, the 2nd and 3rd age groups were most susceptible to potential risk factors of the osteoporosis. An average BMD was highest in the 2nd and 3rd age groups.

Prospects of further study of the relationship between osteoporosis and concomitant diseases is needed when deciding whether to include this category of patients into the group of risk of osteoporosis or not. Further implementation of the densitometry survey for the target groups of women entering the baseline-screening program at the state level will allow to reduce the incidence of osteoporosis.

References:

Accepted for printing on 18 Dec 2017