Kyrgyz Republic

Overview

Although the Kyrgyz population is young, it is estimated that the percentage of people aged 50 years and older will increase in the coming years. That means that osteoporosis will become a growing concern. Currently, there is only one DXA machine located in the capital. Patients need to pay for the test. There is a lot to do in the field in terms of education of patients and medical professionals and an urgent need for epidemiological studies of fragility fractures. Additionally, standards of care for hip fracture surgery need to be introduced.

The Kyrgyz Association on Osteoporosis was established in 2010. Twice a month it organizes free densitometry for those who cannot pay for the investigation. Members of the Association work closely with the media and health care authorities.

Key findings

The present population of Kyrgyzstan is 5.4 million people, with 15% (776,000) aged 50 and over. The population is rapidly growing and getting older and by 2020 the expected number of people over 50 years of age will be close to 1 million, a 32% increase compared to 2008. In 2050 the predicted population size will be more than 7 million people and 32% of the population will be aged 50 and over (fig. 1). Accordingly, osteoporosis morbidity might increase by a third.

There are no statistical data about osteoporosis incidence in the Kyrgyz Republic. According to preliminary data from a public enquiry that investigated the risk factors for osteoporosis and screened using densitometric testing, 34% of women and 27% of men over 50 years of age might suffer from osteoporosis and the prevalence of osteopenia is probably even higher (fig. 2). Thus, in the general population approximately 446,000 women and 250,000 men are susceptible to osteoporosis and are at high risk of low energy fractures. 25% of these patients could become disabled and every fourth case can lead to death. At least a quarter of all fractures is caused by osteoporosis.

Figure 1 Population projection for the Republic of Kyrgyzstan until 2050

Figure 2 The predicted prevalence of osteoporosis in Kyrgyz men and women until 2050
Hip fractures

According to the Bishkek Centre of Traumatology and Orthopaedics, the frequency of hip fractures is around 2,300 cases per year.

In Kyrgyzstan not all patients with hip fractures benefit from qualified medical aid, with only 50% of patients hospitalized and only about 20% of them receiving operative treatment. This particularly applies to remote regions. The majority of patients do not seek medical attention and prefer to be treated at home. Many patients refuse hospitalization because of their old age, serious concurrent diseases, contraindications to operation, inability to pay and other reasons. The average hospital stay of a patient with a fracture is 15 days. Mortality within a year after hip fracture is about 20% (data from the report of the Bishkek Centre of Traumatology and Orthopaedics). The average cost of a hip fracture osteosynthesis is 220-660 USD and 500-2,000 USD for an endoprosthesis. There are no accurate data about average costs of rehabilitation after hip fracture.

Vertebral fractures

According to the same Centre, every year approximately 2,300 cases of vertebral fractures and 1,770 cases of osteoporotic fractures at other sites occur in the country. Osteoporotic vertebral fractures are less likely to be diagnosed, and are often incidental findings.

Diagnosis

In Kyrgyzstan there is one DXA scanner and one QUS, and both are located in the capital city Bishkek. Densitometry examination in Kyrgyzstan is paid by the patients themselves and is not included in the programme of state guarantees.

Patients’ compliance to anti-osteoporotic medication intake is very low because of the relatively high cost of the medications, the patient’s low ability to pay and the long-term nature of the treatment. Treatment of osteoporosis is not reimbursed by the state.

Calcium and vitamin D

In Kyrgyzstan the consumption of dairy products is decreasing and the average annual consumption of milk has fallen from 264 to 88 litres per person per year. Fortified products with calcium and vitamin D3 are absent.

Prevention, education, government policy

In March 2010, an order of the Ministry of Public Health provided for the development of a national programme to fight against osteoporosis. An Osteoporosis Association has been registered and has begun its work. The Centre of Osteoarticular Pathology has organized a school for patients with osteoporosis and the 10th day of every month has been declared as an open day when densitometry is performed for all patients free of charge. A telephone hotline for patients has been established. Educational programmes have been developed and introduced for patients with osteoporosis and those who have risk factors for osteoporosis.

According to surveys questioning doctors in city and district centres of family medicine, the level of doctors’ knowledge of osteoporosis has significantly improved over the last two years. Nevertheless, it was noted that there is still low activity in terms of doctors referring their patients for densitometry. Based on sample interviews, awareness of osteoporosis among the rural population is extremely low: only about 1% of the respondents answered the questions correctly. City residents were better informed about osteoporosis: the right answers were given by 5% of the respondents. The best knowledge was revealed in people from 40 to 60 years old with specialized secondary or higher education.

References

1. Source: U.S. Census Bureau, International Data Base.
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   • Materials of the World Population Fund U.N.O.
   • Socio-economic problems of Kyrgyzstan in the transitional economy.
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