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Editorial

The importance of updating osteoporotic femur fracture data: Asian Federation of Osteoporosis Societies study

To the editor

It is well known that patients with hip fractures have high mortality. Elderly patients with fractures involving the hip joint often experience a decreased mobility, even after surgery [1]. One study demonstrated that osteoporosis is a major risk factor for all-cause mortality in a subjectively healthy senior population, followed by type 2 diabetes mellitus and hypertension [2]. These patients encounter deconditioning and the subsequent complications, which increase mortality as well as financial burdens [3].

Along with aging of the population, the developing countries expected to lead the world in the annual number of hip fractures. However, the last projections or modelling for the number of hip fractures in Asia [4,5] were more than 20 years ago, it is difficult to predict accurately how many hip fractures will occur in the future.

In this issue, Cheung et al. [6] recently published an original article about updated hip fracture projection in Asia. The researchers' efforts to overcome these shortcomings are of value. This study was conducted by the investigators from the 11 Asian regions or countries (members of the Asian Federation of Osteoporosis Societies [AFOS]), thus the study represented the current, up-to-date situation and perspective from these Asian regions. Furthermore, using the recent available information of age- and sex-specific incidence of hip fractures provides a more accurate estimate.

In this article, they concluded that the number of hip fracture will increase from 1,124,060 in 2018 to 2,563,488 in 2050, a 2.28-fold increase. Also, this increase is mainly due to the changes on the population demographics, especially in China and India. They added some evidence that the direct cost of hip fracture will increase from 9.5 billion United State dollar (USD) in 2018 to 15 billion USD in 2050, resulting a 1.59-fold increase.

One of the most striking finding of this study was that given the economic development in China and India, it is expected that the direct medical cost will increase over time. Therefore, it is highly likely that projected direct cost from these countries would be underestimated. Furthermore, considering the predicted medical cost was used in this paper estimated based on data published years ago, we need to worry about how much more we will need to spend on hip fracture treatment.

This study also provides important information that the projected number of hip fracture remains very high. Organizations including AFOS and ~ International Osteoporosis Foundation are trying to diagnose osteoporosis early, and prevent osteoporotic fracture. Furthermore, the research for this is also continuing. To reduce the incidence and economic burden, as the authors insisted, various stakeholders, including patients, families, healthcare professionals, and governments, need to involve and solve this problem, actively.

Recently, many researches have shown that incidence of hip fracture has been stabilized or reduced slightly in developed countries. In contrast, in developing countries and continents, such as Asia, Africa, and South America where the data is not enough to analyze, the hip fracture rates would be continuously rise [7].

Urbanization, differences in medical accessibility, and changes in nutritional status may be the main causes of fracture rate changes. Even, etiologies of these patterns in developing countries have not been fully elucidated, we need to keep investigating reasons for the increased incidence of osteoporotic fractures.

Several additional efforts are needed in addition to this study to identify the factors related to increasing and decreasing incidences are needed in order to design public health strategies and to address future hip fracture problems in Asian countries. First, it is necessary to study the difference between urban and rural areas [8]. Second, research on gender differences should be added. Third, the effect of the management program on osteoporotic fractures, such as fracture liaison service in each country, and the resulting changes should be confirmed [9]. Fourth, it is necessary to confirm the degree of aging of each country belong to AFOS. In addition to this, differences in health care costs and differences in health care systems must be considered for each country. Such efforts should be grouped in groups such as AFOS, not at a single national level.

Conflicts of interest

No potential conflict of interest relevant to this article was reported.

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