

# Are We Prepared for Geriatric Orthopedics?

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The life expectancy at birth has increased more than 10 years in the recent 50 years. In 2007, a newborn girl in a typical OECD country could expect to live to the age of 81.9 years, that is, 10.9 years more than a baby girl born in 1960. Similarly in 2007, a newborn boy could expect to live up to the age of 76.2 years, or 10.4 years more than a boy born in 1960.<sup>1)</sup> Recognition of a person as being elderly may be changing from decade to decade. Sixty-year-old males were elderly in the 1960s; however, this is very active age physically and mentally in twenty first century. Although there is no clear definition, people more than 65 years of age are considered to be elderly people. The portion of the male population whose age is more than 65 years in the OECD countries was 11.0 percent in 2000 and that for females was 15.1 percent in 2000. These percentages of elderly people are expected to become 22.7 percent for males and 27.7 percent for females in 2050.<sup>1)</sup>

A combined orthopedic geriatric rehabilitation ward was created in the United Kingdom in the early 1950s.<sup>2)</sup> Dr. Devas, an English orthopedic surgeon, used a term 'Geriatric Orthopedics' in 1974.<sup>3)</sup> Since then, only 65 articles can be found in a PubMed search when 'geriatric orthopedics' was entered.

Geriatric people are not just old adults. Their bone and soft tissue quality is quite different from that of ordinary orthopedic patients. Osteoporosis, which is frequently encountered in the elderly, should be carefully considered and it is now a treatable condition. The aged skin and soft tissues are usually fragile and less tolerant of surgical trauma. Geriatric people may have medical comorbidities such as diabetes mellitus, hypertension, vascular disorder, cancer or dementia. Their margin of safety for certain drugs and their incidence of adverse reactions may be different from that of the general population. Musculoskeletal injuries and diseases in elderly people have now become major challenges for orthopedic surgeons.

The primary aim of orthopedic treatment for these

elderly patients must be the return of function, yet in certain patients who have severe comorbidities, the aim of treatment can be a return to independent life, that is, independent walking, dressing, toilet functions and eating. This independency should be provided to maintain the dignity of human beings. The quality of life to maintain human dignity is much more important than the quantity of life, and especially for the elderly. When patients can not achieve independency, they may lose their will to continue life.

Prolonged bed rest in the elderly can be life threatening and so it should be avoided. Bed rest weakens muscle and bone, and strong bones and muscles are essential for the daily activities of living. The possibility of decubitus ulcer as well as genitourinary, respiratory or other infections increases sharply with prolonged bed rest.

A single orthopedic surgeon cannot manage all the geriatric orthopedic patients. The elderly patients may need geriatric physicians, psychiatrists, anesthesiologists, physiotherapists and psychologists, as well as geriatric orthopedic surgeons. A comprehensive assessment from each specialist is mandatory to achieve a 'return of function' or a 'return to independent life.' Thus a careful team approach that includes governmental and social supports is essential for delivering optimal care to these geriatric orthopedic patients.

The life expectancy at birth in the OECD countries was 79 years in 2007. This may go up to the 90s or even to the 100s in the near future. We as orthopedic surgeons must be prepared for the sharply increasing number of 'geriatric orthopedic patients.'

## REFERENCES

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