Characteristics and Issues of Healthcare for the Elderly

Yasuyoshi OUCHI*1

Abstract
In Japan, average life expectancy is 78.64 years for men and 85.59 years for women (2004 Abridged Life Table), with people 65 years old or older accounting for more than 20% of the total population. It is anticipated that by 2015 fully one-quarter of Japan's population will be over 65 years old. Such societal aging is not peculiar to Japan or a few industrialized countries in Europe and the US, but actually is more of a global phenomenon.

Although no one can escape the phenomenon of aging, the ideal of successful aging is to lead a full, healthy life and enjoy a long natural lifespan. Successful aging is the ultimate goal of geriatric medicine and practical healthcare for the elderly.

To reach this goal, it is important to provide high-quality healthcare services for the elderly by (1) developing methods for the diagnosis, treatment, and prevention of geriatric diseases through increased understanding of their nature, and (2) learning how best to care elderly patients with functional disorders.

Recent years have seen a new development in geriatric healthcare that includes an understanding of the importance of comprehensive geriatric assessment and geriatric syndromes, progress in geriatric research, establishment of more evidence in geriatric medicine, new approaches in drug therapy, and cooperation in the areas of clinical medicine, welfare, and long-term nursing care, as well as support following discharge.

This paper describes the main features and issues of healthcare for the elderly, based on the aforementioned new trends in this field of medicine.

Key words Healthcare for the elderly, Comprehensive geriatric assessment, Geriatric syndrome, Holistic medicine

Characteristics of Geriatric Care for the “Young-Old” and “Old-Old”

In the young-old years (65–74 years of age), signs of the body’s aging become apparent, and the number of people who develop geriatric diseases increases. However, the percentage of people with functional disorders that affect their everyday life remains low, while many continue to be active and vigorous. Clinical strategies for these people are usually the same as those for young or middle-aged individuals, although it is necessary to carefully examine the general bodily functions of each person, with consideration given to individual variability. Individuals in this age group are able to play an active role in society and can thus be referred to as the “young-old.”

In contrast, special approaches are often necessary in dealing with the “old-old” (aged 75–89 years) and the “extremely (super) old” (aged 90 years or older). Those in these age categories show more obvious signs of aging, and the prevalence of multiple diseases increases greatly. As functional capacities related to everyday living decrease, attention to maintenance of the individual’s general physical functioning is no less necessary than that to the diagnosis and treatment of specific diseases. Therefore, the main target of geriatric medicine tends to be the old-old or the oldest-old, necessitating a comprehensive view of holistic medicine.

*1 Professor and Chairman, Department of Geriatric Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan (youchi-tyo@umin.ac.jp).
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For example, organ-specific approaches in diagnosis and therapeutics are not adequate in providing healthcare for the elderly; a broader view that covers general organ functions, physical functioning including activities of daily living (ADL), mental health, and the individual’s social environment is necessary. This then points to holistic medicine. The holistic approach of course is important for the medical care of non-elderly patients as well. However, it is particularly important in dealing with elderly patients, and it is no exaggeration to say that geriatric care cannot be effective without this approach.

Characteristics of Geriatric Medicine

Pathogenesis and characteristics of geriatric diseases
Diseases among the elderly are classified broadly into two types: longstanding illnesses from younger days that have been modified by changes in organ function as a result of aging; and diseases that worsen markedly with aging and tend to be characteristic to the elderly. The latter are generally known as “geriatric diseases.” Geriatric diseases are defined as diseases common among or characteristic to the elderly. However, geriatric diseases are not limited to those seen only in the elderly, as some people are affected by these diseases at a younger age. Typical geriatric diseases include osteoporosis, dementia, and atherosclerotic disease (particularly, cerebrovascular disorders).

Importantly, geriatric diseases not only determine the vital prognosis of the elderly patient, but also can cause functional impairment leading to disability or the need for nursing care, and eventually to a markedly deteriorated quality of life for the patient and his or her family. Unlike younger people, the elderly are likely to develop functional impairment on the basis of age-related physiological changes. Therefore, the care of elderly patients should be aimed at rehabilitating them into society while maintaining their remaining physical functional capacities. A helpful tool in pursuing this aim is the comprehensive geriatric assessment (CGA), described below.

Comprehensive geriatric assessment (CGA)
Lowering of physical functions necessary for daily activities is often observed in the elderly, and this makes a factor that determines the level of need for nursing care. Therefore, it is important in working with elderly patients to assess their functional capacity objectively and to work to prevent their decline while promoting improved functioning. Items to be assessed include ADL, intellectual functions, presence/absence of a depressive state, quality of life (QOL) or subjective wellbeing, level of independence, and volition. These parameters constitute the CGA of the elderly. Rubenstein et al. demonstrated for the first time the usefulness of CGA for general management of the elderly, as well as its benefit in improving not only vital prognosis but also functional capacity. CGA also has been attracting a great deal of recent attention in Japan.

In the process of a CGA program, a team of health professionals that can include physicians, nurses, medical social workers (MSW), pharmacists, rehabilitation specialists such as physiotherapists and speech therapists, and dieticians hold regular conferences to discuss the patient’s condition, treatment strategies, and policies of care, on the basis of medical characteristics, general functional capacity, and the socioeconomic features of the patient in question. In this manner, all aspects of rehabilitation, nursing care, and welfare, as well as medical care, are taken into the process of decision making, and the patient is supported toward discharge based on proper discharge planning. This work is valuable in that it is done in a coordinated manner. A detailed outline of CGA is presented in another article in this issue, “Comprehensive Geriatric Assessment and Team Intervention” (see page 461–466).

Concept of geriatric syndrome
It is obvious that determining the cause of disease and providing treatment to remove the primary cause are important in clinical medical practice. However, in elderly patients, symptomatic control rather than identification of the cause may be important when a particular series of symptoms are present. Geriatric syndrome is a group of clinical conditions that are common in old age and result from various causes. They tend to require a therapeutic approach to the conditions themselves rather than a causal approach, regardless of the cause(s). Typical of such conditions are mis-swallowing (dysphagia), falls, cognitive dysfunction, and urinary incontinence.

Dysphagia occurs in a variety of conditions
including cerebrovascular disorder, consciousness disturbance, Parkinson’s disease, at the end stage of malignant disease, or in long-term bedridden patients with decreased ADL. Further, it may cause aspiration pneumonitis and diffuse aspiration bronchiolitis. Repeated pneumonitis hinders oral feeding and, therefore, seriously affects the patient’s QOL, possibly resulting in prolonged hospitalization. Thus, the prevention of mis-swallowing and improvement of swallowing function leads to improvement in the vital prognosis and QOL of the elderly.

Falls, for instance, can be a result of various factors such as gait disturbance due to sequelae of cerebrovascular disorder or bone and joint disease, orthostatic hypotension, and side effects of tranquilizers. Falls may cause not only trauma but also cerebral hemorrhage or femoral neck fracture, eventually causing the patient to be confined to bed. Therefore, the prevention of falls is an important issue. In addition to causal treatment, important means include improvement of the living environment to prevent falls, assistance in walking, and the wearing of protectors to mitigate the impact of a fall and to prevent fracture.

Roles of Geriatric Healthcare in an Aging Society

Diagnosis and treatment of diseases common in the elderly

Osteoporosis, Alzheimer’s disease, and atherosclerotic disease (particularly, cerebrovascular disorder) are typical geriatric diseases that characteristically deteriorate the QOL of elderly patients and interfere with successful aging. Establishing the pathogenesis and treatment of these diseases is, above all, the goal of the current practice of geriatric medicine.

It is also critical to accumulate evidence that can serve as the basis for the treatment of geriatric diseases. For instance, control of hypertension in the elderly requires an approach different from that used for younger hypertensive patients. More specifically, it is unclear whether the same criteria for the initiation of antihypertensive therapy or blood pressure control are applicable, and drugs should be chosen to maximize the benefit of antihypertensive therapy according to the condition of the individual patient. To this end, evidence to establish criteria for the initiation of antihypertensive therapy and the selection of proper drugs is necessary, and thus further clinical studies of hypertension in the elderly are required.

Spread of preventive medicine for geriatric diseases

Once a geriatric disease has occurred, it is usually very difficult to treat. The prevention of geriatric diseases is extremely important from the aspect of effective utilization of finite medical resources. For example, once compression fracture of the lumbar vertebra has occurred as a result of osteoporosis, there is no way to restore it to its former condition. Femoral neck fracture can be repaired by surgery, but substantial medical resources need to be utilized. To prevent osteoporosis, it is necessary to warn the younger generation of its risks and to promote aggressive prevention of the disease.

Like diabetes mellitus and hypertension, osteoporosis is a multifactorial disease that is derived from the mutual effects of genetic and environmental factors. Such risk factors have been demonstrated to include menopause, lack of physical activity, insufficient calcium intake, and emaciation. Studies on the genetic risk factors are in progress, and the accumulation of knowledge allows us to screen those at high risk, enabling more efficient prevention.

Yoneyama et al. divided 470 institutionalized elderly subjects (mean age, 82 years) in geriatric health care facilities into two groups: those given or not given about 5 minutes of oral care (brushing, and plus sterilization with 1% povidone iodine if brushing was insufficient) after every meal, and followed them for 2 years with regard to the onset of pneumonia and death from pneumonia. Results showed that the incidence of pneumonia was 19% in the control group, but significantly lower, 11%, in the group with oral care. The mortality rate, which was 16% in the former group, decreased by more than twofold, to 7%, in the latter group. Interestingly, intellectual function as assessed by the Mini-Mental State Examination (MMSE) decreased by 3.0 points on average within 2 years in the control group, whereas the corresponding decrease was only 1.5 points in the oral care group, indicating significant inhibition of intellectual deterioration in the oral care group.

It is noteworthy that a simple oral-care procedure reduced the incidence of pneumonia by
nearly half and exerted a favorable effect on intellectual function in the elderly. This finding is also important from the viewpoint of medical economics, indicating a substantial reduction in medical care expenditures. It is also important to accumulate evidence for other geriatric diseases in a similar manner.

Establishment of a nursing care system for the elderly

The provision of nursing care for the elderly is an important issue, and one that is particularly critical for Japan, where society has aged, leading to a growing population of isolated elderly individuals. Nursing care for the elderly relies on the long-term care insurance system launched in April 2000. Several issues have cropped up in regard to this system, such as how best to separate health insurance coverage and long-term care insurance coverage and a larger-than-expected increase in the number of beneficiaries of long-term care insurance. A review of this system will be necessary in the future to obtain further improvement. It will be necessary to construct a framework of nursing care suitable for Japan's situation under the long-term care insurance system.

Discharge planning for the elderly

The disease spectrum of the Japanese population has changed as a result of a marked increase in the population of elderly citizens, particularly the old-old, and home care for patients with medical needs has become easier. Because of these changes, it is considered desirable for patients to lead an independent life at home and within the local community, despite the presence of disease. On the other hand, national medical expenditures now account for about 8% of national income and a marked increase in medical expenditures for the elderly has been noted. Therefore, the national government is promoting medical reforms, and early discharge is being encouraged through the differentiation of hospital functions and revision of medical treatment fees.

As a result of these reforms, the mean number of hospital days has decreased markedly, and transition from institutional care to home care is being promoted. These changes represent a dramatic alteration in the circumstances surrounding medical care practice. The changes in medical structure have caused numerous difficulties in the rehabilitation and discharge of elderly patients. For instance, with increasing reductions in the number of hospital days, many acute hospitals now are oriented toward early treatment and early discharge, resulting in serious problems with regard to the discharge of patients. In chronic hospitals, securing continuation of care to ensure that the patient maintains mental and physical functioning after discharge is an issue.

Under these circumstances, the need for discharge planning that ensures the patient an environment of adequate post-discharge treatment has become a widely recognized concern. Japan, like many other countries, has a rapidly growing need for medical support that is based on discharge planning that can secure a smooth discharge and good quality of post-discharge life, through the cooperation and networking of local medical facilities and the utilization of home-care measures such as home-visitation by nurses. The goal of discharge support is to provide the patient and his or her family with a favorable living environment that takes into account the medical and social situation of the patient, including his or her specific disease, ADL, family structure, and economic situation. Post-discharge support is closely related to the practice of home care. More specifically, a multidisciplinary team that includes physicians, nurses, MSWs, and so on, can support the patient in arranging the living environment and medical environment after discharge, by helping with discharge to another hospital, to a residential care setting, or to the patient's home as well as the use of long-term care insurance services, selection of a primary care physician, and communication with the physician.

Improvement of an education and research system for geriatric medicine

To promote advances in geriatric medicine, it is necessary to expand educational and investigative institutions that can nurture health professionals in this field of medicine. In this regard, although geriatrics departments in university medical schools have played a leading role, their numbers are insufficient because only 23 of 80 medical schools in Japan have such divisions. Geriatrics departments have been decreasing rather than increasing in recent years. The author has expressed his concerns about this decrease in an article submitted to the “My Perspective” column of the major newspaper, Asahi Shimbun. This article was carried by the morning edition of
the paper on April 25, 2006.6

One piece of good news is that the National Center for Geriatrics and Gerontology was set up as the sixth national center in March 2004. This institution is expected to take an active role as a high-quality research institute in the field of geriatric medicine. Furthermore, it is highly encouraging that a research center for gerontology (Endowed Research Department of Gerontology, The University of Tokyo, led by Prof. Hiroko Akiyama) was set up at The University of Tokyo in April 2006. It is hoped that courses or research units aimed specifically at geriatrics and gerontology will be established in the future in a number of universities and will develop outstanding resources that can play a leading role in the medical care of the elderly.

References


Conclusion

Characteristic features and future issues of healthcare of the elderly in Japan’s aging society have been discussed. The system of geriatric medicine is based on extensive, advanced knowledge and skills with the aim of achieving successful aging. Diseases of the elderly characteristically cause the patient to require nursing care owing to functional impairment, resulting in a deteriorating vital prognosis and poor QOL. In closing, it should be emphasized that a holistic approach to the maintenance of functional capacity from the viewpoint of preventive medicine, as well as diagnosis and treatment of the disease, are important in treating the elderly.