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Editorial

Recent Trends of Common Factors of Geriatric Medicine and Rehabilitation Medicine

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ABSTRACT

Geriatric medicine and rehabilitation medicine have similar points of view. They have common concept for stages as disease (disorder), impairment, disability, and handicap. WHO has announced International Classification of Functioning, Disability and Health (ICF). Comprehensive Geriatric Assessment (CGA) is useful for evaluation of geriatric syndrome, such as frailty, sarcopenia, and cognitive impairment. Frailty seems to be found approximately 10-14% for more than 65 years. Sarcopenia implies a situation that physical function is reduced by muscle loss. It can be diagnosed by the Asian Working Group for sarcopenia (AWGS) or the European Working Group on Sarcopenia in Older People (EWGSOP2) criteria.

Keywords: Geriatric medicine, Rehabilitation medicine, International Classification of Functioning Disability and Health (ICF), Comprehensive geriatric assessment (CGA), Asian Working Group for sarcopenia (AWGS), European Working Group on Sarcopenia in Older People (EWGSOP2).

EDITORIAL

In recent years, the proportion of the elderly population has been increasing in developed countries such as Japan. Then, the necessity for geriatric medicine has been expected in the medical system. Various health and medical problems have emerged so far, which could be roughly divided into disease (disorder) or disability. They have been managed adequately according to the situations and countries [1].

On the other hand, various problems can be discussed from the viewpoint of rehabilitation medicine. WHO established the International Classification of Impairments, Disabilities and Handicaps (ICIDH) in 1980 [2]. Among them, three levels of disability classification have been widely recognized, which were impairment, disability, and handicap. After that, revisions were attempted due to various issues for long. Consequently, the new International Classification of Functioning, Disability and Health (ICF) were announced [3]. There would be difference between ICIDH and ICF. The former was a classification for "consequence of disease", targeting only the negative part of disability. In contrast, the latter “ICF” has changed its classification to “components of health”. It can cover everything related to human health, including the positive part of health as well as disability [3].

As mentioned above, both of geriatric medicine and rehabilitation medicine have similar points of view. In fact, the evaluation method has been often used as four stages degree of disease (disorder), impairment, disability, and handicap [4]. The goals are to extend health and longevity, early detection of disease or disability, adequate care and intervention, and to improve the QOL and ADL for any people.

The author has been involved in gerontology, primary care medicine, psychosomatic medicine and integrated medicine for many years. Among them, I played a role of the chairman in the 8th annual conference of Japan Primary Care

Association (JPCA) [5], which has 4500 attendees in May 2017. In these medical subspecialties, they have common characteristic aspects of a wide range of medical care, indicating biopsychosocial perspective [5].

From this perspective, comprehensive geriatric assessment (CGA) has been practical and useful [6]. CGA has been a multidisciplinary diagnostic and treatment process. It can identify medical, psychosocial, and functional capability of elderly people. Consequently, CGA can develop a coordinated plan to maximize overall health with aging.

This would be the crucial point in the light of geriatric practice. Among them, there are three components from biopsychosocial model. In other words, i) physical: basic ADL, Barthel Index and instrumental ADL as physical aspect, ii) psychiatric: mini-mental state examination (MMSE), geriatric depression scale (GDS15) and vitality index, iii) social or others: family, residence, care, economical state, community, nutrition, taking medicine, falling down, and so on [7].

The CGA has been the fundamental evaluation and the detail method varies from hospital to hospital in each country. In recent society, people have received a variety of stresses, leading psychosomatic problems. Therefore, functional independence measure (FIM) has been utilized as the evaluation of physical aspect and dementia state in daily life [8]. This is a reasonable measure for evaluating the ADL on a 7-point scale and setting a specific level of return to daily life from diseased condition [9].

Geriatric syndrome has been known associated with several clinical symptoms, such as frailty, sarcopenia, anorexia of aging and cognitive impairment [10]. There are the major causes of poor outcomes in elder people. The rapid geriatric assessment (RGA) is a screening for primary care physicians to be able to detect geriatric syndromes [11]. RGA measures frailty, sarcopenia, anorexia, cognition, and advanced directives. There is a useful mnemonic for the check list. It is MEALS ON WHEELS, which stands for medications, emotional (depression), alcoholism, late-life paranoia, swallowing disorders, oral conditions, nosocomial infections, wandering, hypertension, enteral problems, eating problems, low cholesterol, stones (cholecystitis) [11]. These procedures can lessen medical problems and hospitalization, and improve adequate care in clinical practice [12].

If there is a problem with ADL of the elderly, it can be roughly divided into two patterns considering the progress to that level. One is a pattern where the function is reduced like a stairway associated with some trigger events. This is seen in cerebrovascular accident. In such case, the severity of the disease may influence whether the rehabilitation could be effective or not [13].

The other is a pattern where physical function gradually decreases with aging. This is observed when the muscle strength gradually decreases. It is often observed in the case of frail or sarcopenia. Muscle strength can be reversible to some extent by continuing rehabilitation.

In actual practice, both of frailty and sarcopenia show a significant overlap [14]. When illustrating the relationship by concentric circles, there are three circles. They are i) frailty, ii) sarcopenia (physical phenotype), iii) sarcopenia (multi-dementional phenotype) from inside to outside [13,14].

Frailty has been diagnosed by some guidelines such as Cardiovascular Health Study (CHS) [15,16]. From the research using CHS criteria, the ratio of frailty more than 65 years would be 10%-14% [17]. Nutritional status is closely related to the onset and progression of frailty [18]. In addition, intervention studies on frailty have established the significance of exercise therapy [19]. However, there has not been enough evidence for other treatments. This would be one of the problems for developing the future research.

On the other hand, sarcopenia implies a situation where physical function is reduced due to muscle loss [20]. Regarding the guideline of the sarcopenia in Asian countries, the Asian Working Group for sarcopenia (AWGS) has been formerly established [21]. AWGS criteria has been useful, and recently new AWGS criteria was presented in 2019, which was in line with the changes in the European Working Group on Sarcopenia in Older People (EWGSOP2) criteria [22,23].

The diagnosis of sarcopenia was compared in elder people by application of three definition of the guidelines, which are the Japan Society of Hepatology (JSH) criteria, AWGS criteria, and the EWGSOP2 criteria [23].

In summary, geriatric medicine and rehabilitation medicine have occupied important position in the medical practice for elderly people. For the evaluation of disease (disorder), impairment, disability, and handicap, clinical application of CGA would be useful. The condition of frailty and sarcopenia can be assessed for the adequate management of the patient. Further research would be expected for the wellness of elderly people.

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