Various Approaches to Rehabilitation Science

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Background

Rehabilitation is a field of medical procedures used to facilitate the rapid recovery of a disabled physical state or at least prevent the worsening of the state by means of active or passive physical activity. Rehabilitation is a main method of tertiary prevention of health problems because it is initiated after the occurrence of a physical problem rather than before (primary prevention) or during occurrence (secondary prevention). The most typical and well-known rehabilitation is post-stroke rehabilitation. Early intervention can prevent prolonged bed rest, improve the ability of daily living (ADL) and extend life expectancy. Furthermore, there is sufficient evidence to indicate that this approach is effective in both improving the quality of life (QOL) and prolonging life expectancy. Advances in medicine and the social welfare system have changed lifestyles, and people now want a more comfortable life with a prolonged life expectancy. Consequently, the role of rehabilitation is inevitably being extended to not only treating severely deteriorated health conditions but also treating more minor (i.e. not life threatening) health problems such as metabolic syndrome and senility. This is because the promotion of ADL and QOL, which is the purpose of rehabilitation, is not only valuable for a comfortable happy life but is also quite important for extending life expectancy.

In this special issue, articles that are rather atypical of rehabilitation research were gathered to present various approaches to rehabilitation science.

Dry mouth is a common problem in the elderly. Although this is not directly life threatening, it does represent a nuisance and lowers QOL, particularly for people who do not have sufficient ADL to freely wet their own mouth. Ono and Uchiyama [1] reported a trial study of salivary gland massage, which was simplified such that it could be practical for helpers to perform for the residents of nursing homes. Their report suggested that this simple massage is comfortable for patients and is significantly effective for increasing salivary secretion.

Surgery is a good method for improving QOL of patients with chronic orthopaedic problems. However, it is at least psychologically quite a burden to choose a surgical solution and avoid or at least postpone it. Jigami et al. [2] showed that rehabilitation is both effective for improving subjective QOL, as measured using a rating scale (SF-36v2), and for postponing the surgery.

Although the concept of evidence-based medicine is regarded as the most important basis of practical medicine and rehabilitation science also needs to be based on specific evidence, the search for the best solution by comparing randomly selected procedures and their results using statistical methods sometimes results in false and biased conclusions. Therefore, the importance of basic research, which seeks to investigate the mechanisms underlying rehabilitation procedures, must be emphasized. Two such studies are included in this issue, one focusing on humans as the subjects and the other on rats.

Keywords:
Rehabilitation, Quality of life, Health, Walking

Competing Interests

The author declares that no competing interest exists.
References


