Editorial

Vitamin D and Sarcopenia

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Vitamin D, besides its crucial role in calcium and bone homeostasis, has many pleiotropic effects. Through its effects on the Vitamin D receptor, it regulates various cellular functions. A causal association between low Vitamin D levels and disrupted immune response, susceptibility to infections, carcinogenesis, cardiovascular diseases has been suggested in different studies though not vitiated in randomised controlled trials and meta analyses. In the elderly population, its role in moderating osteoporosis and decreasing falls and falls related injuries has been established. Vitamin D supplementation (low dose) has been recommended in geriatric population for persons over age 65 years to prevent falls if these individuals are baseline deficient in Vitamin D levels with a goal to maintain the 25(OH) Vitamin D levels above 30ng/ml. This improved vitamin D level is purported to increase muscle strength by improving mitochondrial oxidative function in skeletal muscles through its cellular effects. Other mechanisms may include its impact on muscle cell differentiation, intracellular calcium handling and at the genomic level. In this issue of the Journal, Gamai El-din et al. have elucidated the relationship between myostatin and vitamin D receptors in sarcopenia. Myostatin is a myokine produced in the muscles by the inherent myocytes which negatively regulates the muscle growth. In their analyses by RT- PCR technique for isolating myostatin and vitamin D receptor mRNA in sarcopenic elderly individuals, they have elaborated an inverse relationship between them which suggests a plausible role of vitamin D in preventing sarcopenia.

Availability of better health facilities and improvement in the living conditions have increased the global life expectancies. These issues are discussed in the article in this issue of the journal with need to collect similar database in other neighbouring countries so that appropriate allocation of resources may be done for optimum care of the elderly population.

Dementia is associated with progressive decline in cognitive functions. Assessment scales for dementia have been devised for its early recognition and subsequent monitoring during treatment and follow up. The linguistic barriers encountered in these dementia assessment scales have been overcome by innovative efforts taken by health care providers so that the questionnaire are designed in patients own vernacular language which is easy to comprehend and administer. These have been validated appropriately by standard protocols so that reliable yields may be achieved by use of these scales.

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