2021 Update: Malnutrition, Muscle Loss and Sarcopenia

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SARCOPENIA IN OLDER ADULTS: HOW CAN WE DO SOMETHING ABOUT IT?

A rapidly aging population is one of the greatest health challenges to Singapore and worldwide today and is associated with a higher prevalence of multiple chronic health conditions, sarcopenia, and frailty. Singapore has been rapidly ageing since 2012 and the percentage of individuals aged 65 years and above is projected to increase from 8.4 percent in 2005 to 18.7 percent in 2030.^{1,2}

In Unit 1, A/Prof Lee Wee Shiong provided a definition for sarcopenia, its diagnosis and management. Sarcopenia refers to the age-associated progressive and generalised loss of skeletal muscle mass plus loss of muscle strength and/or reduced physical performance. Described as the biological substrate that antecedes physical frailty, sarcopenia is associated with adverse health outcomes in older adults.³ The International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM) and the Asian Working Group for Sarcopenia (AWGS) 2019 consensus provides an algorithm for identifying and diagnosing older adults with or at-risk for sarcopenia. Primary care physicians can evaluate for reversible causes using the '4D' mnemonic. Currently, the mainstay of treatment is non-pharmacological, comprising resistance exercise and adequate protein intake.

In Unit 2, Dr Tey Siew Ling highlighted the importance of screening and intervention to improve nutritional and functional outcomes in community dwelling older adults. The prevalence of risk of malnutrition is high among community-dwelling older adults and is associated with adverse health outcomes and higher costs of care. Achieving energy, protein and micronutrient requirements are important to maintaining health and functional independence. Early screening for malnutrition risk in older adults is an important public health strategy. Screening enables early identification, intervention and best clinical outcomes. Raising awareness on the importance of nutritional health in older people is key to maintaining physical function and independent living.⁴

Muscle health is intimately linked with nutritional health and physical activity. In Unit 3, A/Prof Samuel Chew described the assessments and multimodal targeted interventions for muscle health in older adults.⁵ The SARC-F questionnaire is an ideal screening tool in the community setting for sarcopenia in older adults, while calf-circumference can be used as a surrogate measure to screen for low muscle mass. The risk of malnutrition in older adults can be rapidly screened using Malnutrition Universal Screening Tool (MUST) in both inpatient and outpatient settings.

A multidisciplinary approach using targeted progressive resistance exercise training (RET) and provision of adequate protein, energy and replacement of any underlying Vitamin D deficiency is required.

The ten readings selected by A/Prof Goh Lee Gan cover topics on prevention of sarcopenia, and the role of various interventions such as nutritional interventions, resistance exercises, and Omega-3.

In this issue, Dr Seow Su Yin and colleagues presented a case series of Social anxiety disorder (SAD) to illustrate the typical and atypical ways SAD can present, including an atypical case that may have been mistaken as a psychotic disorder. SAD is a common but unfortunately underrecognised type of anxiety disorder, leading to 80 percent of the patients undertreated. SAD can present a diagnostic challenge to primary care physicians as patients may present only when they start developing psychiatric comorbidities. Recognition and differential diagnosis of SAD is important for primary care physicians as SAD shows good response to medications and psychotherapy, while untreated SAD is highly associated with comorbidities and significant functional impairment.

Dr Jane Tan and colleagues described an adolescent who was a victim of school bullying leading to depression.⁷ The team collaborated with her family, school and various community health providers and community mental health outreach programme to ensure a positive outcome by providing timely and holistic support and counselling. This also circumvented the stigma and isolation should she be primarily managed in a tertiary care psychiatric unit, thereby minimising the risk of non-compliance with treatment and follow-up. Adolescence is a difficult period with many struggling to develop emotional and mental capabilities to deal with the rising demands of school and family. Depression is the fourth leading cause of illness and disability among adolescents aged 15-19 years, and primary care physicians should be aware of these presentations and to engage the family and community in their management.

We hope you enjoy reading this issue on an increasingly important topic of sarcopenia, and please take care and stay safe as always.

REFERENCES

- Seng JJ, Kwan YH, Lee VS, Tan CS, Zainudin SB, Thumboo J, Low LL. Differential health care use, diabetes-related complications, and mortality among five unique classes of patients with type 2 diabetes in Singapore: a latent class analysis of 71,125 patients. Diabetes care. 2020 May 1;43(5):1048-56.
- Low LL, Kwan YH, Ko MSM, et al. Epidemiologic Characteristics of Multimorbidity and Sociodemographic Factors Associated With Multimorbidity in a Rapidly Aging Asian Country. JAMA Netw Open.

- 2019;2(11):e1915245. doi:10.1001/jamanetworkopen.2019.15245
- Lim Wee Shiong. Sarcopenia: Update on Diagnosis and Treatment in an Asian Community Setting. Singapore Fam Physician 2021; 47(6): 5-12.
- 4. Tey Siew Ling. Management of Malnutrition in Community-Dwelling Older Adults: The Importance of Screening and Interventions to Improve Nutritional and Functional Outcomes. Singapore Fam Physician 2021; 47(6): 13-18.
- Chew Teong Huang. Assessments and Multimodal Targeted Interventions for Muscle Health in Older Persons. Singapore Fam Physician 2021; 47(6): 19-28.
- 6. Seow SY, Tan CZ, Kwok KF. Social anxiety disorder is not just shyness: A common but underdiagnosed condition. Singapore Fam Physician 2021; 47(6): 46-48.
- Tan HM, Tan TH, Kang CY. Multi-Prong Approach to Improve Outcome of Managing Adolescence Depression in Primary Care. Singapore Fam Physician 2021; 47(6): 40-42.