



**Editorial**

# Update on Sarcopenia Diagnosis and Treatment in Asia: What's Different?

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Sarcopenia is defined as an age-related condition characterized by loss of appendicular muscle mass with reduced muscle strength and/or physical performance.<sup>1-3</sup> It is associated with adverse health outcomes in older adults, and treatment with specific intervention programs that consist of nutritional supplementation and exercise may improve muscle health and clinical outcomes.<sup>1,2</sup> Since the diagnosis of sarcopenia was first introduced, sarcopenia research has grown rapidly and is gaining attention as a prognostic factor.<sup>4</sup>

Asia is the most populated continent with fast aging population, and it is facing increasing challenges related to sarcopenia. The Asian population has very different dietary patterns and lifestyles from Westerners, and the diagnostic criteria and treatment of sarcopenia may need special considerations.<sup>1,2</sup> Most Asian countries have high proportion of carbohydrate relative to protein intake, and body compositions also vary greatly between Asians and Caucasians.<sup>5</sup> In 2014, the Asian Working Group for Sarcopenia (AWGS) published the consensus for sarcopenia diagnosis that essentially echoed the European diagnostic algorithm with some adjustments based on published studies.<sup>1,6</sup> The AWGS 2014 Consensus listed clinical indications that warranted assessment for sarcopenia, and suggested several outcome indicators to promote related research.

More recently, AWGS published the 2019 Consensus which partly echoed the revised European Consensus by keeping the diagnostic algorithm, as AWGS considered sarcopenia to be a condition with reduced muscle mass and impaired muscle function.<sup>7</sup> However, AWGS 2019 added the term "possible sarcopenia" defined as the presence of reduced of muscle strength and/or reduced physical performance, instead of "probable sarcopenia" defined as low handgrip strength by the European consensus.<sup>8</sup> Some may argue that this definition of muscle function is ambiguous and there is a lack of strong link between low muscle mass and adverse outcomes. However, AWGS elected to concentrate the discussion of sarcopenia in muscle health to avoid the complex interrelationship with neurological and skeletal systems.<sup>9,10</sup>

AWGS 2019 clearly defined different strategies to facilitate case-finding and screening for sarcopenia in both community and hospital settings. While it is important to diagnose sarcopenia in the community setting, patients

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often need to be referred to hospitals to confirm their diagnosis due to lack of appropriate diagnostic equipment. It is vital to start an integrated care planning for each individual patient. Older adults usually have multiple comorbidities that require lifestyle modifications, and these changes may also interact with the development of sarcopenia. Diet control in older population with cardiometabolic risk often incorporate limiting calorie or protein intake. AWGS 2019 recommended a community approach to promote integrated care planning to co-manage chronic disease together with healthy aging principles. Many chronic conditions like diabetes mellitus, chronic kidney disease, heart failure and chronic obstructive pulmonary disease increase energy consumption and decrease dietary intake due to reduced appetite or restricted dietary intake. The diagnosis and treatment of sarcopenia in older adults should be holistic and take chronic condition management into consideration. To promote early intervention in seniors at risk of or with sarcopenia, AWGS 2019 included the definition of "possible sarcopenia" to promote lifestyle modification and comprehensive care planning for those with chronic conditions.

In hospital or research settings, a complete diagnostic algorithm should be performed in parallel with more in-depth care planning for managing acute conditions. Older adults visiting the hospital often have certain acute or sub-acute conditions that are more energy-consuming, and they may be more prone to develop medical or surgical complications. To optimize recovery from illnesses in older patients, nutritional care and early mobilization should be implemented in their care plans in acute hospital settings.<sup>11</sup>

There has been limited data from sarcopenia intervention trials, and no pharmaceutical agents has successfully treated sarcopenia. The standard approach to treating sarcopenia continues to be maintaining sufficient protein intake together with proper resistance exercise. Nevertheless, it is essential to integrate sarcopenia treatment with acute or chronic condition management to achieve healthy aging in older adults.

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