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Promoting Sustainable Kidney Health: The Asia-Pacific and Beyond

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Session Topic : Enjoy Life in Older Adults with CKD
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How to Manage Sarcopenia in CKD Patients?

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Sarcopenia is defined as the loss of muscle mass, strength, and low physical performance due to aging or chronic diseases such as chronic kidney disease and diabetes. In CKD, sarcopenia occurs due to accelerated protein catabolism from the disease itself and from dialysis procedures, combined with low energy and protein intake. There are many shared mechanisms for both progression of CKD and sarcopenia such as mitochondrial dysfunction which is exacerbated by poor nutrition and sedentary lifestyle. Sarcopenia is associated with many negative outcomes such as falls, fractures, and accelerated progression to end stage kidney disease. Prevention, screening, and management of sarcopenia should be integrated into routine care for CKD patients. Simple screening tools can be used in clinical practice such as chair stand test, handgrip strength, gait speed and timed-up-and go. Management of sarcopenia in CKD is complex due to significant heterogeneity in kidney function, physical function, and nutritional status. One of the major risk factors for sarcopenia is Protein-energy Wasting (PEW). There are multiple causes for PEW in CKD patients such as anorexia, dietary restrictions, depression, increase in energy expenditure due to chronic inflammation, hormonal changes and socio-economic difficulties. Controlled protein intake needs to be balanced with increased energy intake which can often be very challenging in older patients. Multidomain interventions such as adequate energy and protein intake, together with personalized exercises help maintain muscle mass, strength, and overall mobility. However, there are multiple barriers such as accessibility, exercise intolerance and poor adherence to recommended nutrition intervention. Future research should focus on intensity of exercise and optimal protein intake in older CKD patients with different functional and nutritional status.

Keywords: sarcopenia, Protein-energy Wasting, chronic kidney disease, older adults