

## **【Special Lecture】**

### **Frailty in CKD: an Overview**

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Frailty exhibits diverse influences on health-related outcomes and represents a surrogate of increased susceptibility to harmful injuries. Patients with chronic kidney disease (CKD) are at a higher risk of accelerated biologic aging, and, in this population, the concept of frailty emerges as an instrumental measurement of physiologic reserves. However, a comprehensive description of known independent contributors to, and risk associates with, frailty in these patients remain unavailable.

Contributors to frailty in CKD patients include sociodemographic factors, smoking, CKD severity, organ-specific comorbidities, depression, hypoalbuminemia, and low testosterone levels. Conversely, the development of frailty was potentially associated with the emergence of cardiometabolic, musculoskeletal, and cerebral complications; mental distress; and a higher risk of subsequent functional and quality-of-life impairment. Moreover, frailty in CKD patients increased healthcare utilization and consistently elevated mortality among affected ones. Based on the multitude of contributors to frailty and its diverse health influences, a multifaceted approach to manage CKD patients with frailty is needed, and its potential influences on outcomes besides mortality need to be considered.