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Session Topic : Enjoy Life in Older Adults with CKD

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Frail Renal Phenotype: identify and manage those in need

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Patients with chronic kidney disease (CKD) and end-stage kidney disease (ESKD) are known to suffer from accelerated aging, a phenomenon signifying the rapid worn-out of their intrinsic capacity to defend against adverse insults, both environmental and endogenous ones. The biologic clock of patients with CKD, according to animal studies and the trajectories of clinical biomarkers, ticks faster than their companions with normal renal function. Such biologic attrition renders individuals with CKD at risk of developing multiple types of geriatric syndromes, namely, phenomena spawning from chronological and/or biologic aging, through which unique features and aging-associated morbidities are described. The presence of geriatric syndromes substantially worsens CKD individuals' physical and functional outcomes, dampening their quality of life. Among the spectrum of geriatric syndromes, frailty is particularly worth mentioning, as it has been touted as the overarching phenotype for other geriatric syndromes. We subsequently coined the status of having frailty in patients with CKD as "frail renal phenotype (FRP)", since the risk factors and outcome influences tend to differ somewhat with frailty in older adults generally. The emergence of FRP in the renal population independently correlates with a higher probability of unfavorable outcomes. Based on data from a continuously evolving cohort of CKD patients (the "COhort of GEriatric Nephrology in National Taiwan University Hospital", COGENT study group), we identified the clinical importance of frailty from the perspectives of risk features, phenotype influences, and treatment considerations in patients with CKD as well as ESKD. Nonetheless, how to successfully reverse FRP in patients with CKD remains a daunting challenge, and early identification followed by risk factor amelioration can be important. We believe that nephrologists as well as healthcare personnel providing care for these patients ought to routinely assess FRP in order to optimize patient care.

Keywords: frailty, chronic kidney disease, geriatric syndrome, aging, frail phenotype