Lecture Code : CKD01-S3
Session Name : Chronic Kidney Disease
Session Topic : Cardiovascular, Kidney, and Metabolic Interplay in Chronic Kidney Disease: Mechanisms and Integrated Care Approaches
Date & Time, Place : June 20 (Fri) / 16:40-18:40 / Room 1 (GBR 101)

Organ Cross-Talk: NAFLD, MAFLD, and CKD

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The association between non-alcoholic liver disease (NAFLD) and chronic kidney disease (CKD) has become increasingly recognized in recent years. Studies have indicated that NAFLD significantly elevates the risk of CKD independently of traditional cardio-renal risk factors, such as obesity, hypertension, and diabetes mellitus. Emerging evidence highlights several novel mechanisms underlying this relationship, including alterations in intestinal microbiota leading to systemic inflammation, intestinal dysfunction, platelet activation, and genetic predispositions like PNPLA3 polymorphisms. The clinical implications of CKD development are profound, given the irreversible nature of kidney damage once established. CKD is associated with increased cardiovascular morbidity and mortality and often progresses to end-stage renal disease, requiring dialysis or kidney transplantation. Despite these insights, significant gaps remain, particularly concerning definitive guidelines for managing CKD in patients with NAFLD. Further research is required to elucidate causal pathways and distinguish between diabetes-related CKD and NAFLD-associated CKD regarding prognosis and treatment strategies. This lecture will discuss the existing evidence linking NAFLD to CKD, explore potential preventive measures, identify critical areas for future research, and advocate for proactive clinical monitoring of renal function in NAFLD patients. A comprehensive approach emphasizing early detection and integrated management strategies will be highlighted to prevent progression to advanced CKD.

Keywords: non-alcoholic fatty liver disease, metabolic-dysfunction associated fatty liver disease, metabolic-dysfunction associated steatotic liver disease, chronic kidney disease, liver fibrosis