Lecture Code : JS02-S2
Session Name : KSN-ISN Joint Symposium
Session Topic : Gaining Insights from Diverse Progression Pattern Leading to Kidney Failure
Date & Time, Place : June 20 (Fri) / 08:30-10:30 / Room 3 (GBR 103)

Hypertensive Nephropathy and Trajectories to Kidney Failure

Jong Hyun Jhee
Gangnam Severance Hospital, Republic of Korea

Hypertension is a major driver of chronic kidney disease (CKD) progression and one of the most significant modifiable risk factors for cardiovascular morbidity and mortality. While elevated blood pressure (BP) is clearly associated with kidney function decline, large randomized controlled trials (RCTs) have yielded mixed results regarding the benefits of intensive BP control in CKD patients. Notably, trials such as AASK, ACCORD, and SPRINT provide important insights into the complexity of BP management in this population, highlighting both the potential benefits and risks, including acute kidney injury and electrolyte disturbances. This lecture explores the pathophysiology of hypertensive nephropathy and its role in the trajectory toward kidney failure. We will review historical and current BP targets in CKD based on major guidelines including KDIGO 2021, and discuss how different BP measurement methods including standardized office BP, ambulatory BP monitoring, and home BP monitoring can influence diagnosis and treatment strategies. The role of BP variability and diastolic hypotension, as well as the impact of medication burden on outcomes, will also be addressed. Management approaches will include both pharmacologic interventions, such as renin-angiotensin system (RAS) blockade, and non-pharmacologic strategies like sodium restriction and lifestyle modification. Emphasis will be placed on individualized BP targets, especially in patients at high cardiovascular risk, and the careful balance between aggressive BP control and potential harm. Through a review of clinical trial data, real-world cases, and guideline recommendations, this lecture aims to provide a comprehensive framework for optimizing BP control in CKD patients and preventing progression to kidney failure.

Keywords: Chronic kidney disease, hypertension, trajectory, kidney failure, outcome