



Lecture Code : KCS01-S3

Session Name : KSN Cooperative Study

Session Topic : -

Date & Time, Place : June 19 (Thu) / 10:30-12:00 / Room 4 (Room 203)

당뇨병콩팥병의 새로운 임상적, 환경적 예후 인자 발굴과 맞춤형 예후 예측 프로그램 개발

Hyeon Seok Hwang

Kyung Hee University Medical Center, Republic of Korea

Chronic kidney disease (CKD) remains a major public health challenge, and diabetic kidney disease (DKD) is the leading cause of CKD progression worldwide. However, clinical comparisons between DKD and non-diabetic kidney disease (non-DKD) populations across institutions have been limited due to differences in data structures and variability in collected clinical parameters. To overcome these limitations, we established a multicenter CKD cohort through the integration of clinical data from six hospitals in South Korea into a standardized common data model (CDM) format. This unified database enabled systematic identification and analysis of CKD patients, offering a robust platform for direct comparison between DKD and non-DKD groups. Through this initiative, we sought not only to delineate the unique clinical characteristics of DKD but also to demonstrate the value of a CDM-based approach in nephrology research. Preliminary analyses indicated that DKD patients exhibited a higher burden of metabolic and cardiovascular comorbidities, greater proteinuria, and lower renal function compared to non-DKD patients. The creation of a multicenter CDM-based CKD database highlights the critical importance of harmonized, large-scale data infrastructure in supporting nephrology care strategies and improving outcomes among heterogeneous populations with DKD. Leveraging this data platform, we further conducted detailed analyses to explore prognostic factors within the DKD population and to identify high-risk phenotypes to provide insights that may inform future individualized therapeutic strategies.

Keywords: chronic kidney disease, diabetes, common data model, big data, multicenter study