

## KSN 2017 Abstract

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### Occurrence and risk factors of kidney outcome among patients with rheumatoid arthritis.

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**Objectives** : Although the rheumatoid arthritis develops within the synovium of joints, many extra-articular organs become involved. About 40% of patients with RA experience the involvement of the musculoskeletal system other than joints and systemic organs. And reduced kidney function is related to the increased mortality among RA patients. Multiple factors attributing to kidney dysfunction should be studied.

**Methods** : We retrospectively analyzed the records of 495 patients diagnosed as rheumatoid arthritis in the Chonnam National University of Hospital, which was diagnosed according to the EULAR guidelines. Each subjects was individually followed up at least for 5 years, and average follow-up period was 9 years. The risk factor assessment was analyzed using Cox proportional hazards regression models.

**Results** : Among 495 patients, total 57 patients (11.5%) experienced the kidney events, including acute kidney injury episodes and progression to the chronic kidney disease. 30 patients experienced acute kidney injury during follow up period, but eventually recovered to the normal kidney function. Renal function declined in 27 patients during follow up period and progressed to the chronic kidney disease, which defined as the glomerular filtration rate (GFR) below the 60mL/min/1.73m<sup>2</sup> by CKD-EPI equation. Through multivariate analysis, age over 60 years old, diabetes mellitus, low serum albumin level, higher baseline creatinine level and immunoglobulin M were associated with kidney events. And subgroup analysis between acute kidney injury group and chronic kidney disease group, resulted no meaningful factors differentiating two groups.

**Conclusions** : Old age, underlying diabetes mellitus, low serum albumin and high baseline creatinine, immunoglobulin M were associated kidney events in rheumatoid arthritis patients.

**Keywords** : Rheumatoid arthritis, kidney disease