061 HOW COMMON IS CHRONIC KIDNEY DISEASE IN A COHORT OF PATIENTS WITH ESTABLISHED RHEUMATOID ARTHRITIS?
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Background: Prevalence estimates of chronic kidney disease (CKD) in RA patients varies from 5 to 50% depending on the population studied and CKD measure used. The aim of this study was to determine the prevalence of renal disease in an RA cohort and investigate what factors predicted the development of CKD in this population.

Methods: Data were collected from an established UK RA cohort (median disease duration 9 years). Consenting patients fulfilling the 1987 ACR criteria for RA were followed up annually, with data gathered on patient demographics (age, gender and BMI) and co-morbidities such as smoking status, hypertension, hypercholesterolaemia and diabetes. Data were also collected on RA characteristics, including RF status, disease duration, disease activity [28-joint DAS (DAS28)], disability (HAQ) and inflammatory markers (ESR, CRP). Estimated glomerular filtration rate (eGFR) was calculated using the Modification of Diet in Renal Disease (MDRD) equation, with an eGFR < 60 ml/min/1.73 m² defined as CKD. Ethical approval was obtained.

Results: Data were available on 426 patients at baseline, of whom 73 (17.1%) had CKD. Those with CKD were likely to be older {median age 70 years [interquartile range (IQR) 63–74] vs 60 (53–67.5), P < 0.0001), female (80.8 vs 65.4%, P = 0.01) and be obese (38.4 vs 26.2%, P = 0.04). Patients with CKD were more likely to have other co-morbidities, specifically hypertension (74.6 vs 34.6%, P < 0.0001) and non-insulin-dependent diabetes mellitus (NIDDM) (12.3 vs 3.7%, P = 0.002). Patients with CKD were more likely to have a higher HAQ score [median HAQ 1.875 (IQR 1.375–2.125) vs 1.5 (0.875–2.0), P = 0.01] and increased ESR [median ESR 26 (IQR 14–40) vs 18 (10–34), P = 0.03], although the DAS28 score was similar in both groups. Patients without CKD at baseline were followed up at 3 years; data were available on 259 patients. Of these, 19 (7.3%) developed new CKD. No difference was seen in the demographics or RA characteristics of those developing CKD vs those not developing CKD, except baseline CRP, which was higher in those developing CKD [median CRP 21.7 (IQR 11.0–46.6) vs 9.78 (4.0–19.0), P = 0.005]. Logistic regression analysis with adjustment for baseline eGFR showed that those developing CKD were more likely to have hypertension at baseline [odds ratio 4.3 (95% CI 1.3, 14.6), P = 0.02].

Conclusion: Prevalent CKD is common in patients with established RA and appears to be associated with patient demographics and co-morbidity (particularly hypertension) rather than RA-specific characteristics. This suggests RA patients should be screened for hypertension and aggressively managed to reduce the risk of CKD.

Disclosure statement: The authors have declared no conflicts of interest.