

VASCULITIS

Validating the new classification system for ANCA-associated GN

Researchers report that a new histopathological classification system for antineutrophil cytoplasmic antibody (ANCA)-associated glomerulonephritis (GN) is a useful way of categorizing patients, but say that the predictive value of the system can be improved by also considering the percentage of normal glomeruli in the biopsy specimen.

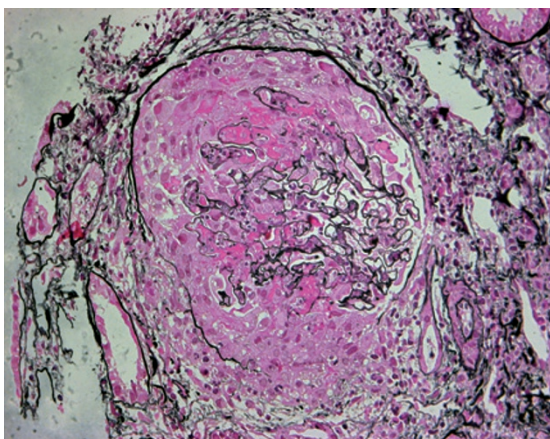
In 2010, Berden *et al.* proposed a pathologic classification system for ANCA-associated GN that described four general categories of lesions: focal, crescentic, mixed, and sclerotic. They found that their proposed system had prognostic value for renal outcomes at 1 year and 5 years in a study of 100 biopsies from patients with ANCA-associated GN.

Hilhorst *et al.* decided to validate the classification system using biopsy specimens from patients with ANCA-associated vasculitis included in the Limburg Renal Registry, which has obtained data from patients undergoing renal biopsy from 1978 onwards. The researchers analysed data from 164 consecutive patients (mean age 61.0 years) with biopsy-proven renal involvement of ANCA-associated vasculitis. Mean follow-up was 8.5 years.

The 5-year renal survival rates for patients divided into the different classification groups were as follows: 91% for the focal group, 64% for the crescentic group and 69% for the mixed group; only one patient was classified as sclerotic. When renal biopsy specimens were grouped according to percentage of normal glomeruli, 5-year survival rates were highest (93.2%) in the group with >75% normal glomeruli and decreased to 57.8% in the group with <25% normal glomeruli. Among patients classified as having crescentic or mixed disease, renal survival was significantly worse among those with <25% normal glomeruli.

“We found that the classification system works well in estimating renal survival but that the percentage of normal glomeruli plays an important additional role,” says Cohen Tervaert, an author on the study. “We therefore advise nephropathologists to report the number of normal glomeruli present in samples, in addition to the category defined by the classification system.”

Rebecca Kelsey



Global cellular crescent in an ANCA-positive patient showing fibrinoid necrosis in the remaining glomerular tuft. Image courtesy of J. W. C. Tervaert, Department of Internal Medicine, Division of Clinical and Experimental Immunology, Maastricht University Medical Centre, Netherlands.

Original article Hilhorst, M. *et al.* Estimating renal survival using the ANCA-associated GN classification. *J. Am. Soc. Nephrol.* doi:10.1681/ASN.2012090912

Further reading Berden, A. E. *et al.* Histopathologic classification of ANCA-associated glomerulonephritis. *J. Am. Soc. Nephrol.* 21, 1628–1636 (2010)