Selection of appropriate outcome measure in ANCA-associated vasculitis. Response to: 'Bowman's capsule rupture on renal biopsy improves the outcome prediction of ANCA-associated glomerulonephritis classifications' by L'Imperio *et al*

We have read delicately the report by L'Imperio *et al*.¹ We thank them for their interest in our work. Previously, we evaluated the performance of both Berden's histopathological classification and anti-neutrophil cytoplasmic antibody (ANCA) renal risk score (ARRS) in the prediction of end-stage renal disease in patients with ANCA-associated vasculitis (AAV) with baseline renal involvement and showed that ARRS might be more advantageous, possibly due to the incorporation of baseline glomerular filtration rate as a clinical parameter to the histopathological findings.² However, L'Imperio *et al* investigated the prognostic role of the additional glomerular, tubulointerstitial and vascular lesions to the Berden's scheme and ARRS in 52 ANCA-positive patients with AAV all had available renal biopsy, complete clinical data. In their multivariable model, the authors revealed that inclusion of Bowman's capsule rupture improved the prognostic performance of both Berden's classification and ARRS. In their analysis, the selected outcome of interest was the time to need for renal replacement therapy or death (whichever occurred first) and during a median 31 months of follow-up, 13 events developed (that eight out of them were death). However, one should keep in mind that originally both classification schemes were developed to predict the renal outcome in patients with AAV. Although baseline renal involvement is a well-known predictor of mortality in patients with AAV, cardiovascular events and infections are responsible for the vast majority of deaths³ in those patients. Therefore, the selection of a more appropriate outcome measure might ensure more precise results.

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Handling editor Josef S Smolen

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Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not required.

Provenance and peer review Commissioned; internally peer reviewed.

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To cite Solmaz D, Akar S. *Ann Rheum Dis* Epub ahead of print: [please include Day Month Year]. doi:10.1136/annrheumdis-2020-218035

Received 26 May 2020

Accepted 28 May 2020

► <http://dx.doi.org/10.1136/annrheumdis-2020-217979>

Ann Rheum Dis 2020;**0**:1. doi:10.1136/annrheumdis-2020-218035

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