Clinical relevance of ANCA in small-vessel vasculitis

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LETTER TO THE EDITOR

Clinical relevance of ANCA in small-vessel vasculitis: positioning of antigen-specific immunoassays

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To the editor:

In a recent publication of Suwanchote et al. in Clinical Rheumatology [1], the clinical significance of anti-neutrophil cytoplasmic antibodies (ANCA) is reviewed for a broad spectrum of ANCA-associated diseases, including small-vessel vasculitis and diseases of the gastro-intestinal tract.

The authors put forward indirect immunofluorescence (IIF) as a method for ANCA screening. In the paragraph describing granulomatosis with polyangiitis (GPA), the authors state that "a positive ANCA test (particularly c-ANCA) strongly supports the diagnosis" and in the paragraph related to microscopic polyangiitis, the authors state that "most patients are positive for p-ANCA." Although these statements are correct, they do not give credit to the importance of the determination of the antigen specificity [proteinase 3 (PR3)-ANCA versus myeloperoxidase (MPO)-ANCA].

There is increasing evidence that support the idea that ANCA-associated vasculitis can be classified on the basis of the ANCA subtype [reviewed in 2]. PR3-ANCA and MPO-ANCA are associated with different epidemiological, genetic, and disease phenotype features as well as with response to therapy, relapse risk, and prognosis [2]. Such newly proposed classification by ANCA specificity allows for immediate diagnosis [2].

In line with the abovementioned insights on ANCA subtype, and supported by a large multicenter study that evaluated the performance of immunoassays and IIF [3–5], a revision of the consensus recommendations on ANCA testing for small-vessel vasculitis has been published [6]. These revised consensus recommendations state that high-quality antigen-specific immunoassays for PR3-ANCA and MPO-ANCA are the preferred screening methodology for the diagnosis of ANCA-associated vasculitis [6].

These new developments in ANCA testing for small-vessel vasculitis were overlooked in the paper of Suwanchote et al.

Compliance with ethical standards

Disclosures None.

References

1. Suwanchote S, Rachayon M, Rodsaward P, Wongpiyabovorn J, Deekajorndech T, Wright HL, Edwards SW, Beresford MW, Rerknimitr P, Chiewchengchol D (2018) Anti-neutrophil cytoplasmic antibodies and their clinical significance. Clin Rheum 37:875–884
2. Cornec D, Cornec-Le Gall E, Fervenza FC, Specks U (2016) ANCA-associated vasculitis—clinical utility of using ANCA specificity to classify patients. Nat Rev Rheumatol 12:570–579
3. Csernok E, Damoiseaux J, Rasmussen N, Hellmich B, van Paassen P, Vermeersch P, Blockmans D, Cohen Tervaert JW, Bossuyt X (2016) Evaluation of automated multi-parametric indirect immunofluorescence assays to detect anti-neutrophil cytoplasmic antibodies (ANCA) in granulomatosis with polyangiitis (GPA) and microscopic poltyangiitis (MPA). Autoimmun Rev 15:736–741
4. Damoiseaux J, Csernok E, Rasmussen N, Moosig F, van Paassen P, Baslund B, Vermeersch P, Blockmans D, Cohen Tervaert JW, Bossuyt X (2017) Detection of antineutrophil cytoplasmic antibodies (ANCAs): a multicenter European Vasculitis Study Group (EUVAS) evaluation of the value of indirect immunofluorescence (IIF) versus antigen-specific immunoassays. Ann Rheum Dis 76:647–653
5. Bossuyt X, Rasmussen N, van Paassen P, Hellmich B, Baslund B, Vermeersch P, Blockmans D, Cohen Tervaert JW, Csernok E, Damoiseaux J (2017) A multicenter study to improve clinical interpretation of proteinase-3 and myeloperoxidase anti-neutrophil cytoplasmic antibodies. Rheumatology 56:1533–1541

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6. Bossuyt X, Cohen Tervaert JW, Arimura Y, Blockmans D, Flores-Suárez LF, Guillevin L, Hellmich B, Jayne D, Jennette JC, Kallenberg CGM, Moiseev S, Novikov P, Radice A, Savige JA, Sinico RA, Specks U, van Paassen P, Zhao M, Rasmussen N, Damoiseaux J, Csernok E (2017) Revised 2017 international consensus on testing of ANCAs in granulomatosis with polyangiitis and microscopic polyangiitis. Nat Rev Rheum 13:684–692