Introduction—ANCA-associated vasculitis reflects ongoing disease activity. We explored its relation to subsequent relapses, treatment, selected intracellular transcription factors and microRNAs (miRs). Patients—RNA was isolated from peripheral blood mononuclear cells (PBMCs) and polymorphonuclear cells (PMNs) in 67 AAV patients (45 MPA, 22 GPA) and 27 controls. mRNA for PR3, MPO, transcription factors and miRs were analyzed with Taqman qPCR. Patients were followed prospectively for 10–23 months.

Results.—Patients had higher mRNA levels in PBMCs for MPO and PR3, and in PMNs for PR3. Patients with active disease (n = 6) tended to have further elevated levels. 11 patients developed relapses during follow-up; their mRNA levels were not elevated compared to those who remained in remission. mRNA levels did not differ based on treatment with Azathioprine, Mycophenolate or Methotrexate, but correlated to steroid doses. Steroid-free AAV patients (n = 16) had levels similar to controls. In controls mRNA levels for MPO and PR3 were correlated to C/EBP-α in PMBCs but such a correlation was not seen in AAV patients. In controls both PR3 and MPO mRNA levels correlated to miR-29a, -93 and -142-3p. In AAV patients there were no significant correlations between PBMC miR levels and mRNA for MPO/PR3. Also in PMNs from controls there were several positive correlations between miRs and MPO/PR3 mRNA that were not present in PMNs from AAV patients.

Conclusion.—The regulation of PR3 and MPO mRNA levels seems to differ between AAV patients and controls. Low doses of steroids (2.5–10 mg/day) might be responsible for these differences as well as for the myelopoiesis gene signature seen in AAV during remission. mRNA levels for PR3 and MPO do not seem to reflect subclinical disease activity or predict relapses. If these findings relate to the therapeutic effect of steroids in AAV remains unknown.

http://dx.doi.org/10.1016/j.lpm.2013.02.028
Introduction. — It has been suggested that ear, nose, and throat (ENT) involvement in ANCA-associated vasculitis (AAV) may carry the advantage of earlier recognition of the systemic vasculitis. Alternatively, differences in histological findings between patients with MPO-ANCA and PR3-ANCA might represent different routes in the pathogenesis of vasculitic disease in these subsets of patients. This study investigates whether ENT involvement in AAV is associated with better renal function and histopathology than AAV without ENT involvement.

Methods. — Renal biopsies with ≥7 glomeruli were available from 152 newly diagnosed AAV patients from four international multicenter trials. Age, ENT involvement, ANCA type (PR3 or MPO), interstitial fibrosis and tubular atrophy (IFTA), tubulitis, interstitial infiltrates and the histopathologic classification of ANCA-associated glomerulonephritis (AAGN) were analyzed as candidate determinants of GFR at diagnosis (GFR0). The relation of GFR0, IFTA and the histopathological classification with ENT involvement was analyzed at the time of diagnosis.

Results. — Sixty-four patients had ENT involvement at diagnosis, 88 patients had not. Multivariate analysis revealed that in combination with ENT involvement (r = 0.25, P = 0.000), age (r = -0.34, P = 0.000), IFTA (r = 0.16, P = 0.000), tubulitis (r = 0.16, P = 0.001), interstitial infiltrates (r = 0.20, P = 0.000) and the histopathologic classification of AAGN (r = 0.411, P = 0.000) were associated with GFR at diagnosis. Patients with ENT involvement had a higher GFR0 (60 mL/min versus 44 mL/min, P = 0.000), less IFTA (P = 0.001) and a histopathologic more favourable class (P = 0.000) than patients without ENT involvement. Increasing numbers of active BVAS ENT parameters (range: 0–6) showed a high correlation with increased renal function at time of diagnosis (P = 0.000).

Conclusion. — ENT involvement in AAV with renal disease is associated with better renal function and less severe histological renal injury, probably due to diagnosis before the development of irreversible chronic lesions.

http://dx.doi.org/10.1016/j.lpm.2013.02.029

A28
Clinical evaluation of a rapid immunofluorescence test (IIFT) for diagnosis of ANCA-associated vasculitis

Radice1, L. Bianchi2, S. Glionna2, B. Trezzi2, C. Farina1, R.A. Sinico2
1. Microbiology Institute, San Carlo Borromeo Hospital, Milan, Italy
2. Nephrology and Clinical Immunology Unit, San Carlo Borromeo Hospital, Milan, Italy

Introduction. — AAV, when untreated, generally follow a fatal progressive course so that early diagnosis is mandatory to allow timely treatment. Reliable laboratory methods for ANCA testing are essential to confirm diagnosis. Guidelines suggest combining IIFT and MPO/PR3-specific assays as the optimal strategy for ANCA detection. Aims of this monocentric, retrospective study were to evaluate:

– the diagnostic performance of a rapid ANCA kit (Europlus™);
– its usefulness in emergency clinical settings.

Methods. — Sera from 107 AAV selected on the basis of clinical diagnosis, 123 pathological and 20 healthy controls were tested. Materials: Granulocytes Mosaic EuroplusTM (Euroimmun); homemade ANCA-IIFT; ANCA-MPO/PR3 (Oegenetec, direct ELISA). The Granulocytes Mosaic EuroplusTM system is a IIFT assay where the slide wells (“biochips”) are coated with ethanol/formaline-fixed neutrophils and purified MPO/PR3 microdots (figure 1). The system allows the contemporary evaluation of IIFT and antigen-specific assays. The test is carried out as a classical IIFT and results are available in ≈ 90’.

Results. — Granulocytes Mosaic EuroplusTM vs. standard methods:
– global IIFT concordance 88.7%;
– antigen-specificity (MPO/PR3) concordance 89.5%;
– diagnostic sensitivity 81.3%;
– diagnostic specificity 97.2%;
– total agreement (classification) 90.4%.

We also evaluated the clinical usefulness of such rapid test in critical settings. Of 13 consecutive samples from pts with severe kidney & lung involvement tested, 12/13 were correctly classified.

Conclusion. — Our results show a good diagnostic performance of the Granulocytes Mosaic Europlus™, and its high concordance with the reference multi-testing algorithm.

The presence of cell substrates & antigen-specific spots makes it possible to perform at the same time the whole panel test required for the best workup, allowing the laboratory specialist a self-confidence evaluation and communication of the results to the clinicians.

http://dx.doi.org/10.1016/j.lpm.2013.02.030

A29
Prevalence of anti-neutrophil cytoplasmic antibodies in infective endocarditis: An analysis of 109 cases

1. Hospital Saint-Louis, Paris, France
2. Hospital Cochin, Paris, France
3. Hospital Bichat, Paris, France

Introduction. — Sporadic reports have been published on positive ANCA tests in the context of infective endocarditis (IE) and combined with the multisystem protean presentation of IE, this situation may lead to inappropriate diagnosis and therapy. Because the frequency of ANCAcs in IE is unknown, we assessed the prevalence of ANCAs in a relatively large number of cases with IE.

Methods. — The study was conducted in the framework of an inception cohort of consecutive cases with IE launched in 2005 in a single university hospital. Sera were stored for all patients who gave informed consent for blood sampling. All selected sera were tested for ANCAs in a central laboratory using indirect immunofluorescence (IIF) assays and ELISA for anti-proteinase 3 (PR3) and anti-myeloperoxidase (MPO) specificities by use of commercially available kits. In addition, the sera were tested for antinuclear antibodies (ANA) and anticoagulant antibodies (aCl) by use of a commercially available IIF kits and for rheumatoid factor (RF) by use of an in-house test.

Results. — Sera from 109 patients (82 [75%] men, mean age: 57.5 yrs [SD: 15.4]) were tested. All patients fulfilled Duke’s criteria for definite

© 2019 Elsevier Masson SAS. Tous droits réservés. - Document téléchargé le 03/01/2019 Il est interdit et illégal de diffuser ce document.