

## RHEUMATOID ARTHRITIS

### Anti-MCV antibodies—a promising new biomarker for RA

Few reliable biomarkers exist for rheumatoid arthritis (RA). The usefulness of rheumatoid factor (RF) is hampered by low specificity and possible absence in the first year of the disease. Antibodies to cyclic citrullinated peptide (CCP) have high specificity, but low sensitivity for early RA, and CCP is not expressed in the synovial

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membranes. However, data from a new study suggest that antibodies to mutated citrullinated vimentin (MCV) might be a useful addition to the array of diagnostic tools for RA. Anti-MCV antibodies recognize a protein that originates from apoptotic macrophages and is present in the synovium of patients with RA. Nicaise

Roland and colleagues investigated the usefulness of anti-MCV antibodies as a diagnostic marker in patients with RA who were negative for antibodies to CCP.

After adjustment of the anti-MCV assay to produce the same specificity as the anti-CCP assay (94.2%), 9 of 76 patients (11.8%) who were negative for anti-CCP had anti-MCV antibodies. Conversely, 9 of 80 patients (11.2%) who were negative for anti-MCV were positive for anti-CCP antibodies. Anti-MCV antibodies were also present in 6 patients negative for both anti-CCP and RF. Of 20 patients with early RA, 6 were positive for both anti-MCV and anti-CCP, 3 were positive for anti-MCV alone, and 1 was positive for anti-CCP alone. The findings suggest that anti-MCV might complement anti-CCP and RF as disease markers in the diagnosis of RA, but numbers of patients were insufficient to reach conclusions on the relative utility of these markers in early RA.

The investigators also monitored anti-MCV and anti-CCP titers in patients receiving infliximab therapy. They observed that a significant decrease from baseline occurred earlier for anti-MCV levels than for anti-CCP levels (18 months versus 24 months). Decreases in anti-MCV and anti-CCP levels were both significantly associated with improvement in 28-joint disease activity score after 12 months of infliximab therapy, although the association was stronger for anti-MCV than for anti-CCP. Anti-MCV antibodies might, therefore, be useful in monitoring response to infliximab therapy as well as in the diagnosis of RA.

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