

## Ultrasound assessment of disease activity in rheumatoid arthritis

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**T**Clinical scoring of arthritis is of insufficient sensitivity and reproducibility. Variations between different observers in clinical assessment of synovitis are considerable [1]. Studies has shown that magnetic resonance imaging (MRI) and high-resolution ultrasound (US) are more sensitive in detecting synovitis compared to clinical assessment [2]. US identify pathologies with similar accuracy to MRI and is much cheaper and more easily applied in clinical practice. Power Doppler ultrasound (PDUS) findings had an advantage over the gray scale ultrasound (GSUS) assessment of synovitis. Few attempts have been made to develop a global US scoring system for synovitis [3], and only one to develop a composite index that includes US scoring of synovitis, instead of clinical scoring in the current composite DAS 28 index [4].

We tested the construct validity and reliability of US disease activity score (US DAS), compared with 28-joint disease activity score (DAS 28), in assessing joint inflammation and in prediction of structural damage in 90 patients with RA [4]. Strong correlation was found between US DAS and standard assessment of disease activity such as the DAS-28, ESR and CRP levels. US DAS was more reliable than DAS-28 in assessing disease activity in patients with RA. US DAS correlated with X-ray, MRI and US parameters and rates of joint damage. US DAS better correlated with structural damage and better anticipated future joint damage than standard DAS-28. Additional studies of US validity, reliability and sensitivity to change in the assessment of the Rheumatoid Arthritis disease activity are needed.

### Biography

Nemanja Damjanov completed his PhD from University of Belgrade, School of Medicine. He is a full Professor of Internal Medicine and Rheumatology at the University of Belgrade, School of Medicine and the director of the Institute of Rheumatology, Belgrade, Serbia. Currently, he is the President of the Rheumatology Association of Serbia and Secretary General of European League Against Rheumatism (EULAR). His research topics of interest include Capillaroscopy and Sonography in Rheumatic Diseases. Prof. Damjanov has published more than 40 papers in reputed journals and is serving as an editorial board member of "Annals of the Rheumatic Diseases" and "Rheumatology".

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