

MRI of hand, foot may predict rheumatoid arthritis in undifferentiated arthritis

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(HealthDay)—Magnetic resonance imaging (MRI) of the hand and foot

may predict rheumatoid arthritis (RA) in patients presenting with undifferentiated arthritis (UA), according to a study published online Jan. 12 in *Rheumatology*.

Nikolet K. den Hollander, M.D., Ph.D., from the Leiden University Medical Center in the Netherlands, and colleagues studied the predictive value of MRI for progression to RA in the current UA-population who do not fulfill RA-classification criteria and do not have an alternate diagnosis and in [patients](#) with a clinical diagnosis of UA, regardless of classification criteria. Two UA-populations were studied: 405 with criteria-based UA and 564 with expert opinion-based-UA. These patients were retrieved from a large cohort of early arthritis patients who underwent contrast-enhanced MRI scans of the hand and foot at baseline, and were followed for RA development during one year.

The researchers found that 21 percent of the criteria-based UA patients developed RA. MRI-detected synovitis and tenosynovitis were predictive. An independent association was seen for MRI-detected tenosynovitis with RA progression (odds ratio, 2.79), especially among patients with anticitrullinated peptide antibody-negative UA (odds ratio, 2.91). For UA patients with monoarthritis, oligoarthritis, and polyarthritis, the prior risks for RA development were 3, 19, and 46 percent, respectively. For the oligoarthritis group, the MRI result changed this risk the most: Positive predictive value and negative predictive value were 27 and 93 percent, respectively. In expert opinion-based-UA, results were similar.

"MRI had the highest additional value in autoantibody-negative UA patients presenting with oligoarthritis, in whom a negative MRI for tenosynovitis almost excluded imminent RA," the authors write.

More information: [Abstract/Full Text](#)

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