

Contrast-enhanced MRI could play a key role in differentiating between common types of arthritis

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Contrast-enhanced magnetic resonance imaging (MRI) may help physicians differentiate between rheumatoid arthritis and psoriatic arthritis in the hand and wrist enabling more targeted therapies unique to each condition, according to a study in the March issue of the *American Journal of Roentgenology*. Contrast-enhanced MRI uses contrast media to improve the visibility of internal bodily structures.

Rheumatoid arthritis is a long-term disease that leads to inflammation of the joints and surrounding tissues. Psoriatic arthritis is associated with [psoriasis](#) of the skin and is usually confined to the knees, ankles, and joints in the feet. "Clinically, it may be difficult to distinguish psoriatic arthritis from rheumatoid arthritis because the symptoms of both diseases are similar and the diagnostic tests currently available to aid in the differentiation of psoriatic and rheumatoid arthritis are not always sufficient," said Nina F. Schwenzer, MD, lead author of the study.

The study, performed at the University Hospital of Tübingen in Tübingen, Germany, included 45 patients (31 patients with rheumatoid arthritis and 14 with psoriatic arthritis) who were imaged using contrast-enhanced MRI. "The perfusion (or uptake) of contrast media in psoriatic arthritis and rheumatoid arthritis is presumed to be different," said Schwenzer. Typically, one will not be able to see a difference until after 15 minutes after the contrast material is given. "Our study revealed a significant difference in perfusion between those patients with

rheumatoid arthritis and psoriatic arthritis after 15 minutes. However, since it was a small group of patients and there was an overlap in perfusion values between both types of arthritis, a diagnosis could not be led by contrast-enhanced MRI alone. Our results are nonetheless promising though," she said.

"In the past, the treatment strategy for patients with psoriatic arthritis was based on that for patients with [rheumatoid arthritis](#). Recent research indicates that the therapeutic management, including medication and therapy monitoring, has to be adapted for each type of arthritis," said Schwenzer.

"As our study suggests, the use of contrast-enhanced MRI could play an important role in differentiating psoriatic arthritis from rheumatoid [arthritis](#)," she said.

Provided by American College of Radiology / American Roentgen Ray Society

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