

Dual-energy CT accurately diagnoses gout in acute, emergency settings

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A medical imaging technique called dual-energy computed tomography (CT) is an effective and reliable way to diagnose gout in the acute, emergency setting, according to a study published in the April issue of the *American Journal of Roentgenology*. Dual-energy CT is an advanced medical imaging technique that can detect vessels and bones and display them in clear contrast to one another. It enables physicians to diagnose many patients' conditions faster and more accurately as it can better characterize tissue composition better than conventional CT.

Gout is an extremely painful kind of [arthritis](#) that occurs when uric acid builds up in and around the joints. "Doctors often use clinical features to diagnose [gout](#), however many other diseases can mimic or coexist with it and conventional imaging techniques like X-rays, ultrasound, and conventional CT are not specific enough to facilitate a diagnosis," said Savvakis Nicolaou, MD, lead author of the study.

The study, performed at Vancouver General Hospital in Vancouver, BC, included five cases in which the diagnosis for gout was made or excluded on the basis of dual-energy CT. "In every case, conventional imaging techniques were used before applying advanced dual-energy CT technology, however we were not able to make a diagnosis based solely upon those findings," said Nicolaou.

"To our knowledge, dual-energy CT is the only imaging method described to date that can confirm the diagnosis of tophaceous (or chronic) gout with high accuracy," he said.

"Dual-energy CT is an exciting problem-solving tool that can reliably diagnose the presence of tophaceous gout, thereby expediting patient treatment, potentially reducing the burden of chronic complications associated with gout," said Nicolaou.

More information: www.ajronline.org

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