Glutamate imaging better than MR spectroscopy in first three hours after ischemic stroke

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Glutamate imaging reveals ischemic lesions in the first 3 hours after stroke that are not distinguishable in T1-weighted and T2-weighted imaging.

Researchers using chemical exchange saturation transfer (CEST), an emerging MRI technology, have found that using glutamate with CEST shows high spatial resolution in vivo. The finding has the potential to speed diagnosis—and, therefore, treatment—in the critical first hours after a stroke.

"I have been interested in glutamate imaging since its inception," said researcher Zhuozhi Dai of Second Affiliated Hospital of Shantou University Medical College, Shantou, China. "Being able to evaluate glutamate in the brain could be of great benefit in the clinical setting."

More information: Dr. Dai presented the study on Monday, May 5 at the 2014 ARRS Annual Meeting in San Diego, CA.

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