

Iodine Contrast Extravasation Post-Thrombectomy Mimics Magnetic Resonance Hyperacute Reperfusion Marker



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INTRODUCTION:

Hyperacute reperfusion marker (HARM) on post-contrast fluid attenuated inversion recovery (FLAIR) is a marker of blood brain barrier disruption, predictor of hemorrhagic transformation, and poor clinical outcome in ischemic stroke, but requires hyperacute magnetic resonance imaging (MRI) capabilities, so having a comparable computed topography (CT) imaging biomarker would be useful.

KEYWORDS: ischemic stroke, reperfusion injury, contrast extravasation

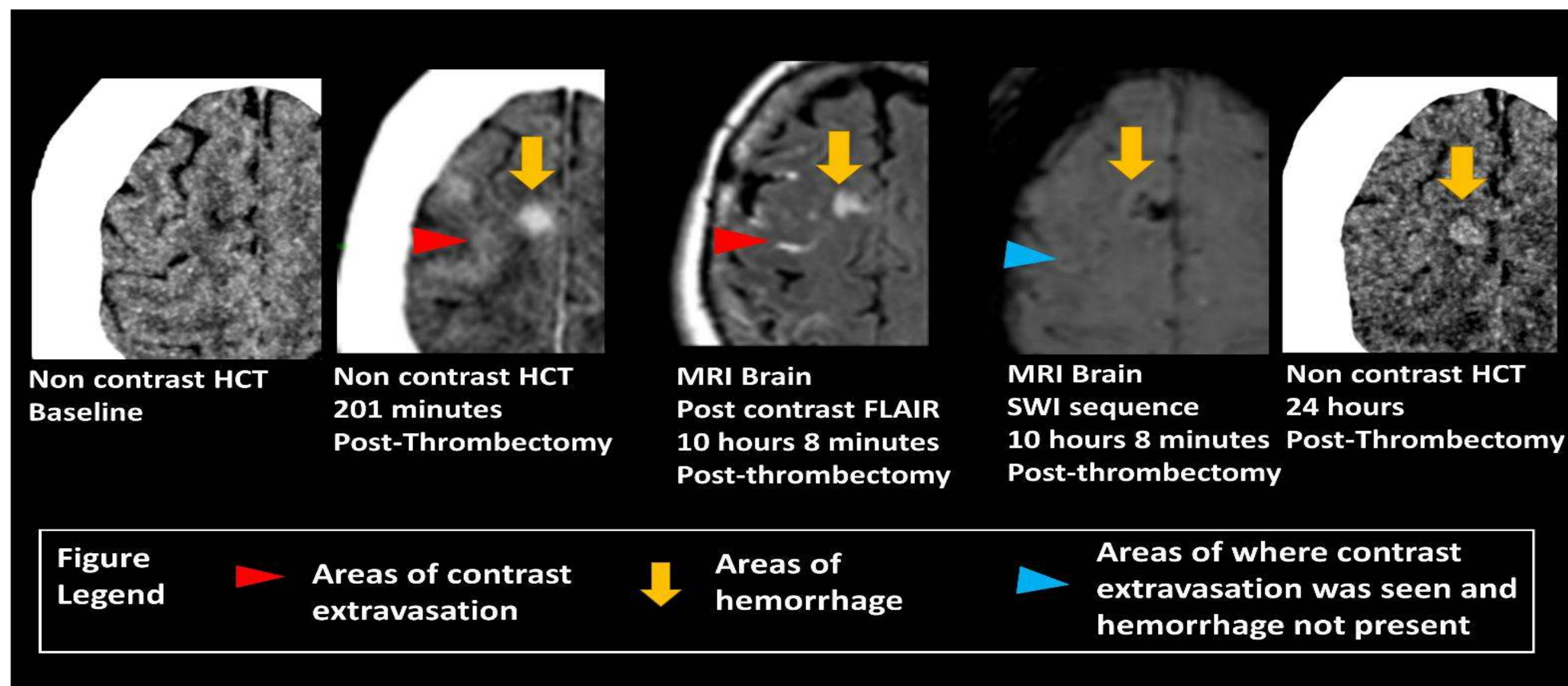
Methods: Imaging findings from an acute stroke patient are described.

CASE REPORT:

A 70 year-old woman with a right MCA stroke was treated with thrombolysis and thrombectomy for proximal MCA occlusion. Post-thrombectomy non-contrast head CT scan acquired 201 minutes post-procedure secondary to neurologic decline demonstrated hyperdensities within the right frontal lobe and sulci. On the post-gadolinium FLAIR sequence obtained 10 hours later as part of the MR perfusion protocol, hyperintensities were similarly distributed to the hyperdensities seen on the post-thrombectomy non-contrast head CT. Also, these areas of likely iodine contrast extravasation on the post-thrombectomy non-contrast head CT were not hypointense on the susceptibility weighted imaging (SWI), confirming they were not representative of subarachnoid hemorrhage. However, the right frontal lesion and right parietal sulcal hyperdensities were hypointense on SWI.

CONCLUSION:

We present a case where post reperfusion contrast extravasation present on CT imaging mimicked the MR HARM found on the post contrast FLAIR. The utility of post reperfusion CT as an imaging biomarker in stroke should be investigated.



REFERENCES:

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