

ENDGAMES



SPOT DIAGNOSIS

Early warning sign on computed tomography of the head

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A 76 year old woman was admitted with acute onset left sided hemiparesis and facial asymmetry. A diagnosis of acute stroke was made on clinical grounds. What abnormality is seen on her axial unenhanced computed tomogram (fig 1) at the level of the sylvian fissure?

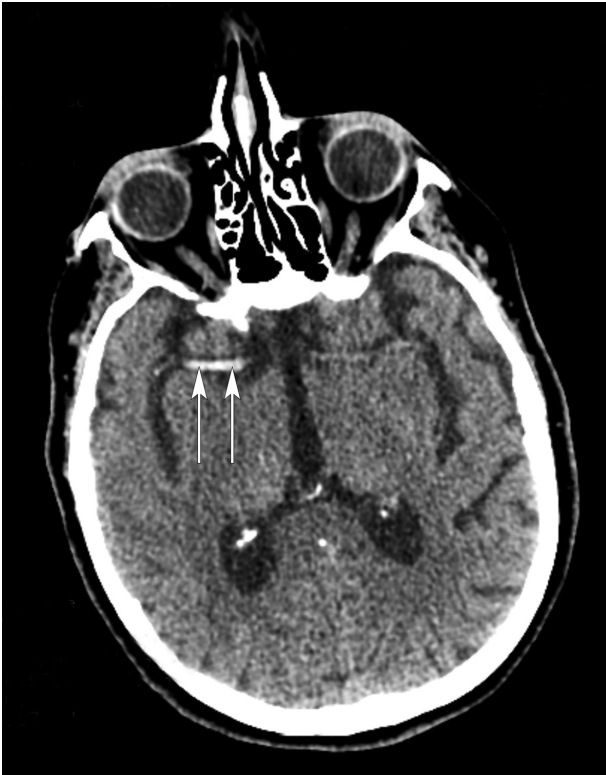


Discussion

The only unusual finding on computed tomography is a dense right middle cerebral artery (fig 2). This hyperdense artery sign is one of the earliest computed tomography findings of an acute ischaemic stroke, typically appearing in the first few hours as thrombus develops. This timescale means if this abnormality is picked up it can guide the decision on treatment. This takes the form of intravitreal thrombolysis and mechanical thrombectomy. National Institute for Health and Care Excellence guidance advises mechanical thrombectomy in cases where thrombolysis has not been successful or is unsuitable, or for research purposes.¹ Diffusion weighted magnetic resonance imaging or perfusion computed tomography (now rarely used) can help with further assessment of initially occult ischaemia.

Answer

The computed tomogram shows a dense right middle cerebral artery.



Competing interests: We have read and understood BMJ policy on declaration of interests and declare the following interests: none.

- 1 National Institute for Health and Care Excellence. Mechanical clot retrieval for treating acute ischaemic stroke (NICE interventional procedure guidance 458). 2013. <https://www.nice.org.uk/guidance/ipg458>.

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