



ORAL PRESENTATION

Sulcal effacement: does it mean irreversible infarction?

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Abstract

Introduction: Sulcal effacement is widely regarded as an early CT sign of stroke. The authors present a case where the interpretation of this sign was confounded by other factors.

Clinical Case: A 45-year-old female patient, previously autonomous and without any relevant medical conditions, was admitted to the emergency room due to sudden onset of left hemiparesis, dysarthria and central facial paralysis. The patient was anosognosic and had a left-side sensory neglect (NIHSS 12). Brain CT revealed a right hyperdense middle cerebral artery sign, signs of early ischaemic changes on basal ganglia and fronto-insular cortex and sulcal effacement on the right fronto-parietal convexity, but preserving the cortical-subcortical differentiation. Intravenous thrombolysis was administered two hours after onset, and the patient was immediately transferred to a mechanical thrombectomy centre.

On arrival the patient was stable. CT angiography confirmed the right M1 segment occlusion and the perfusion study was not readable due to motion artefacts. Mechanical thrombectomy was performed at four hours and forty-five minutes after onset, with complete recanalization of the affected territory (TICI 3). NIHSS at discharge was 5 (central facial paralysis and left hemiparesis). At one-month follow-up, she scored 2 on the NIHSS (mild left hemiparesis).

Discussion: This clinical case pretends to allude to the fact that sulcal effacement in an ischaemic onset might be due to cytotoxic oedema, but might also be due cerebral hyperaemia associated with compensatory vasodilation after an ischaemic insult, and thus falsely overestimate the ASPECTS score. Being so, the distinction is not only of major clinical relevance, but also influences the therapeutic approach.

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