Characteristics of stroke mimics in intravenous thrombolysis

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Introduction: Differentiation of strokes and their mimics can be difficult in an emergency setting, which can lead to intravenous thrombolysis in stroke mimics. We discuss the frequency and clinical features of thrombolysed mimics.

Methods: We collected data of thrombolysed patients from a prospective monocentric data bank (1. January 2010 – 13. January 2012). Group allocation as stroke or mimic was performed using standard diagnostic work up including brain imaging.

Results: Out of 234 thrombolysed patients 7 (2.9%) were determined to be stroke mimics. The most frequent diagnosis among mimics was migraine (n=4) followed by epileptic seizures, acute onset lithium intoxication and an unexplained disturbance of consciousness (n=1 respectively). The leading clinical symptoms were aphasia (5/7), arm paresis (5/7), hemianopsia (2/7), hemihypesthesia (2/7) and dysarthria (2/7). Age was significantly lower in thrombolysed mimics (55 ± 14) compared to strokes (73 ± 13, p=0.003), there was a non-significant trend towards a lower National Institute of Health Stroke Scale score in mimics (6 ± 5) compared to strokes (11 ± 8, p=0.06).

No adverse events of intravenous thrombolysis were observed in stroke mimics, the modified Rankin Scale remained unchanged compared to the initial value.

Conclusions: Thrombolysis in stroke mimics is relatively low-frequent whereas it seems to be safe and leading to a favourable outcome. The leading symptoms in thrombolysed mimics consist of aphasia and arm paresis with a trend towards a lower NIHSS and lower age compared to strokes.