

POSTER PRESENTATION

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# Stroke in the ER - a prospective cohort study of patients suspected of stroke / TIA

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## Background

Patients suspected of having a stroke or transitory ischemic attack (TIA) require acute and accurate assessment in the ER in order to initiate immediate and preventive treatment. The clinical diagnosis is complicated by stroke mimics and poor reliability when based solely on history and physical examination.

## Methods

The objective was to investigate how many patients suspected of stroke/TIA on pre-hospital evaluation, received this as the final diagnosis following assessment in the ER and finally by neurologists and CTC. For four weeks, data was prospectively collected and reviewed.

## Results

Forty-five patients were included (n = 45) and received the following diagnosis: ischemic stroke/TIA 55.6% (n = 25), hemorrhagic stroke 6.7% (n = 3), other 37.8% (n = 17). Ninety-one percent (n = 41) were admitted for further examination. Eighty percent (n = 20) of patients with validated stroke were aged 61-90 years. In 91% of cases with suspected stroke, the tentative diagnosis was sustained in the ER. Of the admitted patients (n = 41), 68.3% received stroke as a final diagnosis. All patients not deemed to have stroke (31.7%) were diagnosed with stroke mimics. Of all strokes (n = 28) 89.3% were ischemic and 10.7% were hemorrhagic. In the age group 85-89 years, 50% had suffered a prior stroke. Eighty percent of admitted patients younger than 50, were diagnosed with various stroke mimics.

## Conclusion

Our results correlate well with previously reported distributions of ischemic versus hemorrhagic stroke.

Further, they confirm prior stroke and age as important risk factors. Regarding "unnecessary" admissions (< 24 hrs), it has been debated whether elderly patients with serious sequels to prior strokes would benefit from admission/rehabilitation in relation to a new apoplexy. Our data shows that in the age group 85-89, 75% of patients with a prior stroke were admitted for several days and benefitted from rehabilitation. Thus, so called "unnecessary" admissions of elderly patients with prior stroke needs to be further studied. Overall, the evaluation of patients in the ER is satisfactory and the suspicion of stroke valid, as all patients not having a stroke represented known stroke mimics.

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