



Outcome measures following endovascular clot retrieval for acute ischaemic stroke – a narrative review.

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Purpose

To quantify and synthesise outcomes used to evaluate endovascular clot retrieval (ECR) with the aim of benchmarking variables for the development of a prospective local clot retrieval registry.

Methods

A search of PubMed, Embase, CINAHL Complete and the Cochrane Library (1 Jan 2015 to 18 Aug 2020) using search terms including stroke, cerebrovascular accident, brain vascular accident, outcome, measure, thrombectomy, embolectomy. Observational studies and Phase III randomised controlled trials (RCTs) in adult patients undergoing ECR were included. After removal of duplicates, screening by title and abstract, 100 full text papers were assessed for eligibility.

Results

Forty-nine studies, from a variety of countries, with a total population of 15,655 were included in the review.

The Modified Rankin Scale (mRS) was the primary measure for the efficacy of ECR. Favourable outcomes (scores 0-1 or 0-2) were reported by most studies, but the failure to report other scores other than mortality (6) is noticeable. The incidence of symptomatic intracranial haemorrhage was often the primary safety outcome. Other variables reported, such as the Modified Thrombolysis in Cerebral Infarction (mTICI) Scale and a variety of time points indicate service evaluation data rather than patient outcome data. Discharge, length of stay and quality of life variables were rarely collected.

Conclusions

This review highlights that limited outcome measures are collected but with a high degree of variation in application and interpretation. This has implications not only for research but also in clinical application and the comprehensive understanding of patient outcome and service need. Consensus on core outcome definitions related to service evaluation and patient outcomes is required.

