Controversies in Stroke Care: Acute Interventions

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This activity is jointly sponsored by Medical Education Resources and National Stroke Association

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Target Audience
The target audience for this activity is

Neurologists
Neuroscience Nurses
Neuro interventionists
Emergency Department Physicians and Nurses
Hospitalists
and others involved in the acute treatment of stroke patients
Statement of Need/Program Overview

Significant knowledge/practice gaps exist across the continuum of stroke care. There are controversies surrounding the use and study of the rapidly changing technologies available for acute interventions in stroke treatment.

Controversy is a hallmark of new ideas in medicine. As an education strategy, the identification and exploration of controversial topics enables an effective debate about unresolved issues, resulting in greater consensus that is supported by evidence-based medicine and expert opinion.

Purpose Statement

Purpose Statement: To increase the knowledge of health care professionals of the controversies surrounding interventional treatments in acute stroke patients.

Learning Objectives

Participants will be able to:
- utilize evidence based and professional practice based knowledge to make decisions about acute stroke interventions
- apply evidence-based knowledge of neurothrombectomy devices when making treatment decisions for acute stroke patients
- interpret controversies between evidence-based practice and clinical utility for acute stroke treatment
Physician Accreditation

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of Medical Education Resources (MER) and National Stroke Association. MER is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation

Medical Education Resources designates this live activity for a maximum of 1 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nurse Accreditation

Medical Education Resources is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center’s Commission on Accreditation.

This CE activity provides 1 contact hour of continuing nursing education.

Provider approved by the California Board of Registered Nursing, Provider Number 12299 for 1 contact hour.

Faculty

Mark J. Alberts, MD
Professor of Neurology
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Robert Ferguson, MD
Chair of Radiology
MetroHealth

Richard Latchaw, MD
Professor of Radiology
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Disclosure of Conflicts of Interest

Medical Education Resources ensures balance, independence, objectivity, and scientific rigor in all our educational activities. In accordance with this policy, MER identifies conflicts of interest with its instructors, content managers, and other individuals who are in a position to control the content of an activity. Conflicts are resolved by MER to ensure that all scientific research referred to, reported, or used in a CME activity conforms to the generally accepted standards of experimental design, data collection, and analysis. MER is committed to providing its learners with high-quality CME activities that promote improvements or quality in health care and not the business interest of a commercial interest.

Faculty Disclosures

Mark Alberts, MD, is a speaker/consultant for Genentech.

Robert Ferguson, MD has no financial relationships to disclose

Richard Latchaw, MD, has 5% ownership of Nexgen Medical Systems, Inc and 3 patents for endovascular devices.

Content Managers’ Disclosure

The content managers reported the following financial relationships with commercial interests whose products or services may be mentioned in this activity:

Denise Henasey, National Stroke Association, has no financial relationships to disclose

Julie Johnson, PharmD, MER has no financial relationships to disclose

Veronda Smith, FNP-BC, MER has no financial relationships to disclose
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To Ask a Question of the Faculty...
Type question here. Make sure “Send to:” drop down is marked to All Panelists

Controversies in Stroke Care: Acute Interventions
The Case Study
Case Study

A 32 year old male, undergoing subclavian angiography for investigation of right arm pain on exertion experiences a sudden onset of left hemiplegia with an NIHSS of 11.

The neuro radiologist on duty, Dr. Latchaw, responds to an urgent page and immediately scrubs into the case to perform a diagnostic cerebral angiogram.

Case Study

An antero-posterior (AP) view of the internal carotid artery angiogram (Fig. 1) is obtained 19 minutes after onset of symptoms. There is occlusion (large arrow) of the proximal M1 segment of the right middle cerebral artery, with what appears to be a non-occlusive tail of thrombus (small arrows) extending proximally from the point of occlusion into the supraclinoid segment of the right internal carotid artery.

Angiogram

Fig. 1
Case Study

One of the stroke neurologists/neurointensivists—Dr. Alberts—is paged and arrives in the angiography suite within 4 minutes. We are now 23 minutes from onset of symptoms.

There is consensus among all parties that the patient has suffered an acute iatrogenic MCA occlusion related to catheter induced fresh thrombus formation within the innominate artery which underwent free-fragmentation and distal embolization into the carotid artery and finally into the middle cerebral artery.

Case Study

The attending vascular surgeon arrives on the scene and asks for guidance from Drs. Latchaw and Albert regarding the current state of evidence for various treatment alternatives including mechanical thrombectomy, IA and IV thrombolytic treatments options.

His first question is to Dr. Alberts, asking what the literature says about treatment for a patient presenting with occlusive ischemic stroke symptoms of less than 30 minutes duration.

Case Considerations

Here are some issues to consider before we launch into a discussion of therapeutic options:
1. What clinical deficits is the patient displaying at this time?
2. What is their overall medical condition in terms of risk factors and co-morbidities?
3. What is the time frame for the procedure in terms of their presenting symptoms?
4. Do we need additional brain imaging before considering any therapeutic interventions?
Case Questions

His next question is to Dr. Latchaw, asking what endovascular alternatives might be available for his patient and if there is credible evidence to support such choices.

References & Trials


NEJM References

IMS III:

MR Rescue

SYNTHESIS
References & Trials


Case Study

The attending vascular surgeon asks them if there is any reason to select a course of action which is not supported by the highest level of evidence.

Actual Case Outcome
Case Questions
Can the result in this case be used as a basis/justification for treatment of similar patients in the future?

Case Questions
What are the limitations associated with various trial designs including specifically those studies referenced earlier?
Was the effect of operator experience and expertise properly addressed and accounted for in the referenced studies that involved a procedural component?

Conclusions
Is the science settled on the issue of endovascular therapy in stroke?
If not, what studies are required to move the science forward?
To Ask a Question of the Faculty...

Type question here. Make sure “Send to:” drop down is marked to All Panelists

CME/CE Credit

Anyone wishing to receive appropriate CME/CE credit must complete the post-test and evaluation and return to National Stroke Association.

Contact Valerie Siebert-Thomas at vsiebert-thomas@stroke.org if you have any questions.

For information on upcoming programs and activities, go to www.stroke.org/meded.