

Endovascular Treatment of Acute Ischemic Stroke: A Paradigm Shift in Institutional Management

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Introduction

The results of recently concluded trials heralded the success of endovascular therapy for the treatment of acute ischemic stroke. The implications of these trials affect the hospital architecture of managing these patients.

Methods

We retrospectively reviewed our records of neurointerventional cases prior to and subsequent to the recent trials. For 2013, there were 19 cases performed for acute ischemic stroke. From June 2014-June 2015 we performed 39 cases for acute ischemic stroke at one institution (MWHC). At our other affiliated institution (MGUH), we performed 15 cases from the same time period.



Results

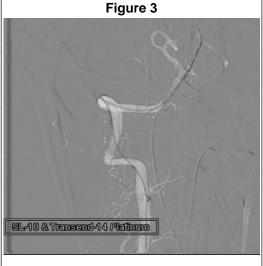
In our cases from 2014-to2015, 21 patients had received thrombolytic therapy. 5 of these patients were receiving tPA prior to arrival to our institution. General anesthesia was utilized in 23 patients. In 16 patients, multiple thromboaspiration catheters were necessary to open up the offending vessel. TICI 3 was achieved in 18 patients, TICI 2b in 10 patients, and the remainder was unable to be re-canalized. Decompressive hemicraniectomy was performed in 6 patients that developed progressive malignant MCA syndrome. All patients were admitted to the neurological ICU for close monitoring and employed multi -modality options when available.

Figure 2 Tandem Occlusion

Conclusions

There has been a significant increase in neurointerventions for acute ischemic stroke. This has implications regarding managing resources for these acutely ill and medically complex patients that require multi-disciplinary management. At our institution, this has necessitated multiple educational debriefings with our vascular neurologists, neuro-intensivists, neurological ICU staff, anesthesiology, emergency room physicians, outside hospital referrals, neurointerventional team (technologists, nurses), as well as neuro-interventionalists and neurosurgeons.

Given the vast resources and need for experienced clinicians and staff, we propose developing a central stroke management area rather than dividing resources amongst several hospital systems



Basilar Stenosis

Learning Objectives

The objective of this poster is to discuss the organizational management of complex care patients within a multi-hospital medical care system.

References:

Shifting bottlenecks in acute stroke treatment

Mayank Goyal, Ashutosh P Jadhav, Alexis T Wilson, Raul G Nogueira, Bijoy K Menon

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