

General Anesthesia for Endovascular Acute Ischemic Stroke Treatment Does Not Delay Initiation to Treatment or Compromise Good Functional Outcomes – Comparing the Duke experience to the MR Clean trial

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Introduction

The use of general anesthesia (GA) for stroke patients undergoing endovascular acute ischemic stroke treatment is controversial. Subanalyses of the MR Clean trial showed no effect on functional outcome (MRS 0-2 at 90 days) in those who received GA. Critics of GA state it delays treatment initiation and limits the ability to perform a neurologic assessment during the procedure. At Duke, our IA-thrombectomy cases have received GA to date. We hypothesize that the benefits of GA allows us to perform a safer and more effective catheterization.

Methods

We performed a retrospective review of all patients receiving IA-thrombectomy patients from January 2015 to October 2015. Data include demographics, timing, safety, and good functional outcome (90 day MRS 0-2). Comparative analyses were performed between our data and the MR Clean subanalysis of GA vs. non-GA cohorts.

Results

59 patients received endovascular treatment for ischemic stroke from January 2015 to October 2015. Demographic and baseline stroke characteristics were similar to those patients in the MR Clean trial. Our door to groin stick time was almost half that reported in the MR Clean trial GA cohort (78 minutes vs. 162 minutes). Good functional outcome at 90 days (MRS 0-2) was achieved by 33% of our patients, which is was more similar to the non-GA cohort (38%) than the GA cohort (23%) in the MR Clean trial. We had no deaths <7 days or vessel perforations (compared to 13% and 1.7%, respectively in non-GA cohort in the MR Clean trial).

Conclusions

GA for endovascular acute stroke treatment did not delay the initiation of treatment or compromise good functional outcomes. Given the limitations of this comparative study, more prospective research needs to be performed to see the benefits of GA for endovascular acute ischemic stroke treatment.

Learning Objectives

Discuss the impact of GA on IA-thrombectomy for ischemic stroke.

References

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