

## The Clinico-radiological Outcome Following Recanalization in Patients WithAcute Internal Carotid Artery Occlusion: Single Center Experience from United States

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#### Introduction

Acute ICA occlusion carries significant mortality and morbidity and is more resistant to recanalization with IV tPA than other large vessel occlusions. The recanalization rate associated with IV tPA for ICA occlusion is similar to the natural history of these occlusions. Recent trials have shown that IV tPA has a lower recanalization rate compared to stent retrievers in the setting of large-vessel occlusion. These trials did not look at extracranial ICA occlusions and tandem lesions. Our study is the largest single center experience with acute ICA occlusion. The aims of the present study is to analyze the clinical and radiological outcome with recanalization therapy in acute occlusion of the ICA with or without tandem occlusions.

#### Methods

The study was approved institutes IRB. 62 consegutive patients(from Jan 2012 - dec 2015) who presented with acute ICA occlusion( complete or near -total) who underwent emergent recanalization were included in the study.Following parameters were analysed: Patient demographics, comorbidities, location of occlusion( proximal/distal cervical/supraclinoid), stent(short reconstruct/long reconstruct), radiological outcome(TICI flow), mRS at 3 months or last follow-up, tandem occlusion, IV -tPA and complications and use of proximal flow arrest.

# Results

The mean-age at the time of procedure was 64.67yrs(median65;SD12.93)and 59.6%(n=37/62) were males.69.35%(n=43/62) patients had complete-ICA-occlusion.Mean-NIHSS at-presentation was 15.01(median16;SD5.7).Carotidstenting was done in all cases,17.74%(n=11/52)received long segment-carotid-stent( involving proximal and distal-cervical or distal-cervical and Petrous-ICA stent).54.83%(N=34/62)% of patients were associated with Tandem-lesion involving ICAterminus/M1/M2.

Balloon-guide/MomA as a proximalprotection was used in 53.2%. 37% patients(n=33/62) received IV-TPA.Good-radiologicaloutcome(TICI-2b-or-3) was seen in-72.5%(n=45/62).

Mean-NIHSS at discharge was 5.6. ICH occurred in 7 patients and it needed surgical-evacuation in onepatient.In-hospital-mortality occurred in 6-patients. Out of 56patients(6died-in-hospital), mRS at 30 days was available in 43patients.72.%(n=31/43) had good(mRS<=2) outcome.

### Conclusions

Emergent Carotid revascularization with Carotid stents should be the first line management strategy for the treatment of Acute-ICA-occlusion. Concomitant treatment of tandem lesions with stent retrievers does not increase the morbidity and mortality.Dual -Antiplatelt regime even in patients who received IV tPA doesn't increase the risk of ICH and adverse clinical outcome.

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### **Learning Objectives**

By the conclusion of this session, participants should be able to

1) understand the clinical outcome of recanalisation of occluded ICA in acute setting

2)understand the radiological outcome of recanalisation of occluded ICA in acute setting.

3)Dual-anti platelet are safe in the setting of IV-TPA

### References

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