ACUTE ISCHEMIC STROKE: ROLE AND TIMING OF CAROTID ENDARTERECTOMY IN INTERNAL CAROTID OCCLUSIONS

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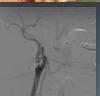


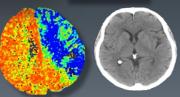
INTRODUCTION

- The incidence of carotid artery occlusion is approximately 3% in patients undergoing angiography for symptomatic cerebrovascular disease.
- Aim: to analyse a cohort of patients who underwent emergency carotid thromboendarterectomy after ICA occlusion with acute ischemic stroke and to evaluate the clinical and CT scan imaging improvement in relation to the timing of treatment.









MATERIALS AND METHODS

Monocentric retrospective study (2009-2016). 19 patients with symptomatic ICA occlusion and ischemic penumbra in Perfusion CT, subjected to emergency CEA and possibly systemic thrombolysis. Evaluation of:

- NIHSS score at admission and after 24 hours.
- Ischemic penumbra volumes in preprocedural Perfusion CT.
- Ischemic core volume in brain CT after 1 month from the stroke onset.

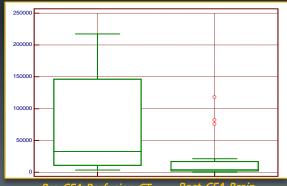
CONCLUSIONS

Given the limited number of patients involved, the study did not define a strong correlation between the timing of treatment and the clinical improvement. Nevertheless, comparing admission Perfusion CT and post-operative Brain CT, the study registered a statistically significant imaging improvement in patients who underwent emergency CEA.

RESULTS

- The mean time from symptoms onset and carotid endarterectomy was 470±258 minutes.
- We found correlation between the timing of treatment and the clinical improvement in terms of NIHSS score (p=0.5503).
- Applying a cut-off of 8 hours between stroke onset and CEA, we registered a clinical improvement in 76,9% of cases; only 33,3% of patients treated after 8 hours clinically improved.

Comparison of ischemic volumes P=0,0002



Pre-CEA Perfusion CI

Post-CEA Brain