

## BACKGROUND

Thromboembolism from the internal carotid artery or middle cerebral artery accounts for 25% of all ischemic, carotid territory strokes. Once symptomatic, these patients are at high risk for recurrent vascular events. Contemporary natural history studies report that the incidence of recurrent stroke after the index TIA ranges from 5-8% at 48hours, 4-17% at 72hours, 8-22% at 7 days and 11%-25% at 14 days. Literature debates which should be the best medical approach once in presence with these specific pools of patients

### PURPOSE

Deduce which prevention regimen would be mostly effective avoiding second transitory ischemic attacks (TIA)/strokes and death in previous symptomatic patients with moderate carotid artery stenosis (50-69%).

### METHODS

Retrospective study between 2011-2016. Symptomatic, moderate carotid artery stenosis

**Group I: BMT**

**Group II: BMT + CEA**

**Group III: BMT + CAS**

**Peri-operative outcomes:** TIA; ipsilateral stroke; clinical myocardial infarct; cervical hematoma; cranial nerve injury and death

**Follow up (FU)** second TIA, stroke or death at one and three years and also, on those that already reached five years follow up

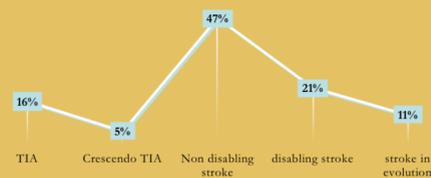
### DISCUSSION

- Expected BMT results were only achieved in a number between 32 – 56% in the BMT Group and 48 – 62% in the BMT + CEA compared to 79 – 89% in the BMT + CAS
- We found a higher incidence of TIA/Stroke in the BMT group when compared to BMT plus CEA at one and three years FU (6,8 vs 7,9% and 10,3 vs 13%), despite no statistical significance.
- When comparing, CEA with CAS, we found a peri operative (30 days) higher rate of combined TIA/stroke/death in the CAS (6,8 vs 10,5%) group, with a significant statistical difference (p=0,038)
- After the 30-day post procedure, and during the FU conducted, post events did not differ statistically between groups (BMT + CEA vs BMT + CAS) (p= 0,08)

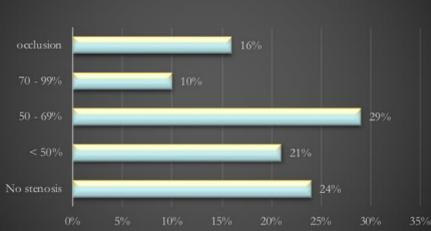
### Group I - BMT

38 Patients. Mean 74,5 years old

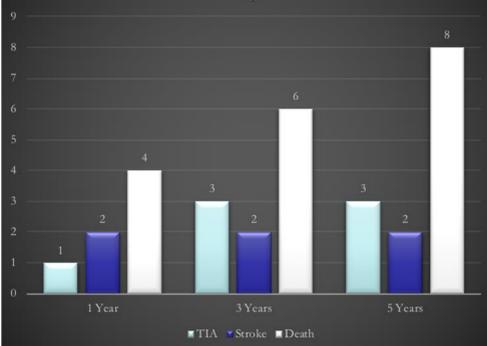
#### ADMISSION EVENT



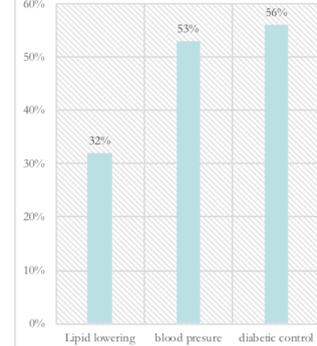
#### contralateral ICA stenosis



#### Follow Up Events



#### Expected BMT results



### Group II – CEA + BMT

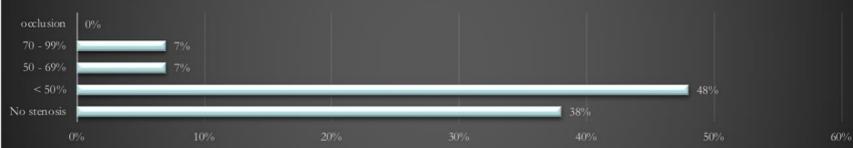
29 Patients. Mean 72 years old

#### ADMISSION EVENT

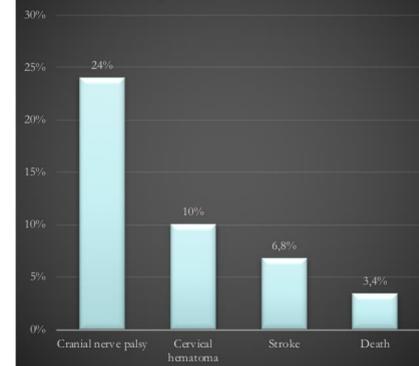


No registries of intra-procedure complications (TIA/Stroke/MI/Death)

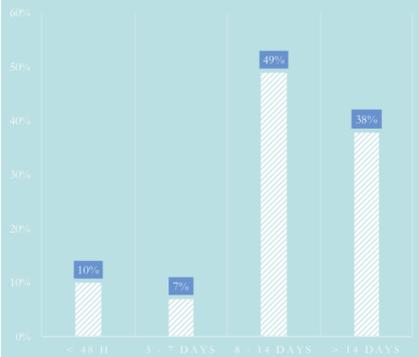
#### Contralateral ICA stenosis



#### Peri procedure Events



#### CEA AFTER ONSET EVENT



### Group III – CAS + BMT

19 Patients. Mean 76,3 years old

#### ADMISSION EVENT



Technical success: 86% (19/22)

Previous intravenous thrombolysis: 7 (37%)

#### Post Operative events

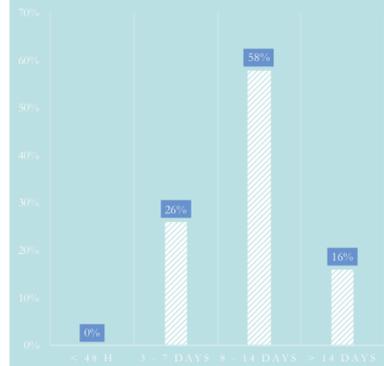
##### TIA and Stroke

Contralateral ICA stenosis: 50–69% and 70–99%  
CAS 3-7 days and 7-14 days onset event

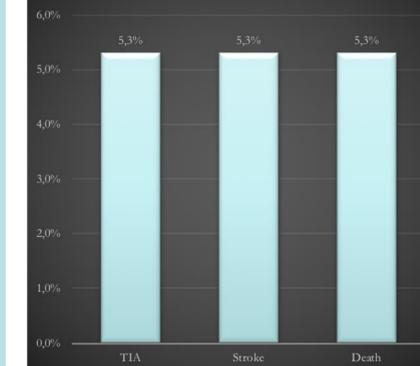
##### Death

80 years old, contralateral ICA 70–99%,  
CAS 7-14 days onset event

#### CAS AFTER ONSET EVENT



#### Peri Procedure Events



### CONCLUSION

- We consider that a symptomatic moderate carotid artery stenosis should be put, ad initio, on BMT.
- Nevertheless, we believe that once presented with a symptomatic moderate carotid artery stenosis, the patient should be oriented to CEA plus BMT as soon as possible, preferably in the first 14-days after onset of symptoms
- After the 14-days onset of symptoms and depending on the neurologic status of the patient after the event, we believe that there may exist some high risk for CEA patients in whom we should preferentially perform CAS