



## Carotid Angioplasty In Octogenarians: A Mono-Arm Trial With Clinical And Angiographic Follow Up

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**Background:** Octogenarians account for a third of ischemic stroke (IS) patients and they have higher morbidity and mortality rate among IS patients. The aim of this study was to evaluate the peri-procedural and long term clinical and angiographic statement of carotid artery angioplasty (CAA) in octogenarians.

**Methods:** In a mono-arm trial 102 patients >80 years old with symptomatic internal carotid artery (ICA) stenosis presented by non-disabling IS or TIA underwent the CAA and were evaluated prospectively from January 2010 to July 2014. All patients had standard stroke care during the study follow up. The peri-procedural complications, cerebrovascular accidents, restenosis in target vessel and mortality rate were recorded to evaluate safety and durability of this secondary stroke prevention method in octogenarians.

**Results:** 48 (47.06%) males and 54 (52.9%) females in a mean period of  $24.5 \pm 14.1$  (6-50 months) were followed. For all patients mean age was  $83.39 \pm 2.53$  (range, 80-88) years. The success rate of CAA was 100%, whereas the peri-procedural complication rate was 5.8% (access-site local hematoma and bradycardia during CAA both in 2.94%). There was only one patient who had acute ischemic stroke during the procedure. Restenosis occurred in 3.9% after a mean of 21.5 months. The proportion of recurrent cerebrovascular accident was 9.8% while TIAs occurred in 3.9% and stroke in 1% of patients. Also 4.9% of patients experienced coronary artery disease and the proportion of fatal recurrent cerebrovascular accident was 2.9%. The median patient event-free survival was 20 months.

**Conclusion:** CAA seems to be a safe and durable IS secondary prevention method in octogenarians with symptomatic carotid artery stenosis.

**Key words:** Octogenarian; symptomatic carotid artery stenosis; carotid artery Angioplasty



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