SAMMPRIS Trial

The aim of a study was to report the relationship between cognitive function and risk factors at baseline and during follow-up in the Stenting and Aggressive Medical Management for Preventing Recurrent stroke in Intracranial Stenosis (SAMMPRIS) trial.

Subjects in the SAMMPRIS trial were included in this study. In order to have an assessment of cognitive function independent of stroke, patients with a stroke as a qualifying event whose deficits included aphasia or neglect were excluded from these analyses as were those with a cerebrovascular event during follow-up. The Montreal Cognitive Assessment (MoCA) score was used to assess cognitive impairment at baseline, 4 months, 12 months and closeout. Cognitive impairment was defined as MoCA < 26. A multivariate analysis was performed to determine what risk factors were independent predictors of cognitive function at baseline, 12 months and closeout. Among patients randomized to aggressive medical management only, the percentage of patients with cognitive impairment was compared between patients in versus out of target for each risk factor at 12 months and closeout.

Of the 451 patients in SAMMPRIS, 371 patients met the inclusion criteria. MoCA < 26 was present in 55% at baseline. Older age and physical inactivity were associated with cognitive impairment at baseline. Older age, non-white race, lower baseline body mass index, and baseline cognitive impairment were associated with cognitive impairment at 12 months. In the aggressive medical management group, at 12 months, physical inactivity during follow-up was the strongest risk factor associated with cognitive impairment.

Cognitive impairment is common in patients with severe symptomatic intracranial atherosclerosis. Physical inactivity at baseline and during follow-up is a strong predictor of cognitive impairment [1].

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Turan TN, Al Kasab S, Smock A, Cotsonis G, Bachman D, Lynn MJ, Nizam A, Derdeyn CP, Fiorella D, Janis S, Lane B, Montgomery J, Chimowitz MI; MBChB for the SAMMPRIS Investigators. Impact of Baseline Features and Risk Factor Control on Cognitive Function in the Stenting and Aggressive Medical Management for Preventing Recurrent Stroke in Intracranial Stenosis Trial. Cerebrovasc Dis. 2019 Feb 14;47(1-2):24-31. doi: 10.1159/000497245. [Epub ahead of print] PubMed PMID: 30763948.