Effect of previous treatment with antiplatelet severity of ischemic stroke subtypes

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**Introduction:** Several studies indicate that aspirin use prior to cerebrovascular event may be associated with mild deficits. To investigate whether prestroke antiplatelet agent use was associated with initial stroke severity and if this benefit may be attributed to the mechanism of stroke.

**Materials and Methods:** prospective registry with patients hospitalized for ischemic stroke during 2014 in two referral hospitals in Campinas, Brazil. Baseline stroke severity was measured using the National Institutes of Health Stroke Scale (NIHSS) scores at presentation. The impact of previous antiplatelet use in admission NIHSS was verified through Multiple Linear Regression. This analysis was adjusted for age as well as other confounding variables.. An interaction term was added to ckeck if the effect of antiplatelet use was dependent on the stroke etiology (TOAST).

**Results:** A total of 287 were included. Patients’ mean age was 67.2 (± 11.2) years and 177 were men (61.7%).. A total of 91 (31.7%) patients had been taking aspirin prior 1 week of stroke onset. Antiplatelet users had a median admission NIHSS of 7 (interquartile range [IQR] 3 – 15) vs 6 (IQR 3 – 11) for the non users (p=0,036). The significance was maintained after multivariate adjusments, with the use of antiplatelets reducing the admission NIHSS in 2,4 points. Having the small vessels oclusion as the reference category, NIHSS at admission was higher for large artery atherosclerosis (B=3,2, p<0,001) and cardioembolism (B=5,7, p<0,001).  Although the interaction term between antiplatelet use and TOAST subtype was not significant, there was absolute differences in the NIHSS relative reduction (RR).

**Discussion:** Antiplatelet use independently reduced the initial stroke severity. Although a possible lack of power hindered the interaction analysis, this study suggests a difference in effect size dependent on the TOAST subtype.

**Conclusion:** This study confirms the utilization of antiplatelet for the reduction of the severity of ischemic stroke

**References:** [1] Viles-Gonzalez JF at al., [Eur Heart J.](http://www.ncbi.nlm.nih.gov/pubmed/?term=1.%09Viles-Gonzalez+JF%2C+Fuster+V%2C+Badimon+JJ+(2004)+Atherothrombosis%3A+a+widespread+disease+with+unpredictable+and+life-threatening+consequences.+Eur+Heart+J+25%3A1197%E2%80%931207.) 25(14):1197-207, 2004; [2] Yi HK et al., Cerebrovasc Dis 20: 120-8, 2005; [3] [Baigent C](http://www.ncbi.nlm.nih.gov/pubmed/?term=Baigent%20C%5BAuthor%5D&cauthor=true&cauthor_uid=19482214) et al., Lancet 373: 1849-60, 2009. [4] Alfred A. Bartolucci et al., Am J Cardiol 107:1796–1801, 2011; [5] Seshasai SR et al., Arch Intern Med. 172(3):209-214, 2014.