

## Long-term effect of policosanol on the functional recovery of non-cardioembolic ischemic stroke patients: A one year study

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**Introduction:** Stroke is a leading cause of mortality and disability. Policosanol has been effective in brain ischemia models. Clinical studies suggested that policosanol (20 mg/day) + standard aspirin (AS) therapy had benefits versus placebo + AS given for 6 months to patients with recent non-cardioembolic ischemic stroke. The objectives of this study investigate whether policosanol, added to AS therapy within 30 days of stroke onset, is better than placebo + AS for the long-term recovery of non-cardioembolic ischemic stroke subjects.

**Methods:** This study was randomized, double-blind, placebo-controlled. Eighty patients with a modified Rankin Scale score (mRSs) 2 to 4 were randomized, within 30 days of onset, to policosanol/AS or placebo/AS, for 12 months. The primary outcome was mRSs reduction, the secondary outcome the increase of Barthel Index (BI). Low-density lipoprotein-cholesterol (LDL-C) reduction and high-density lipoprotein-cholesterol (HDL-C) increase were collateral outcomes.

**Results:** 80 patients (mean age: 69 years) were randomized. Policosanol/AS decreased significantly mean mRSs from the first interim check-up (1.5 months) ( $p < 0.0001$  vs. placebo/AS). The treatment effect did not wear off, even improved, after long-term therapy ( $p < 0.0001$  versus placebo/AS). More policosanol/AS (35/40, 87.5%) than placebo/AS (0/30, 0.0%) were achieved mRSs $\leq 1$  ( $p < 0.0001$ ). Policosanol/AS increased significantly BI, lowered LDL-C and increased HDL-C versus placebo/AS, treatments were well tolerated. There were 12 withdrawals three due to fatal adverse events all happened in the placebo/AS groups.

**Conclusions:** Long-term (12 months) administration of policosanol/AS given after suffering non-cardioembolic ischemic stroke was shown to be better than placebo/AS in improving functional outcomes at 3 and 12 months when used among patients with non-cardioembolic ischemic stroke of moderate severity.

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