

# Artery occlusion independently predicts unfavorable outcome in cervical artery dissection

## Abstract

**Objective:** To assess the impact of dissected artery occlusion (DAO) on functional outcome and complications in patients with cervical artery dissection (CeAD).

**Methods:** We analyzed combined individual patient data from 3 multicenter cohorts of consecutive patients with CeAD (the Cervical Artery Dissection and Ischemic Stroke Patients [CADISP]-Plus consortium dataset). Patients with data on DAO and functional outcome were included. We compared patients with DAO to those without DAO. Primary outcome was favorable functional outcome (i.e., modified Rankin Scale [mRS] score 0-1) measured 3-6 months from baseline. Secondary outcomes included delayed cerebral ischemia, major hemorrhage, recurrent CeAD, and death. We performed univariate and multivariable binary logistic regression analyses and calculated odds ratios (OR) with 95% confidence intervals (CI), with adjustment for potential confounders.

**Results:** Of 2,148 patients (median age 45 years [interquartile range (IQR) 38-52], 43.6% women), 728 (33.9%) had DAO. Patients with DAO more frequently presented with cerebral ischemia (84.6% vs 58.5%,  $p < 0.001$ ). Patients with DAO were less likely to have favorable outcome when compared to patients without DAO (mRS 0-1: 59.6% vs 80.1%,  $p_{\text{unadjusted}} < 0.001$ ). After adjustment for age, sex, and initial stroke severity, DAO was independently associated with less favorable outcome (mRS 0-1: OR 0.65, CI 0.50-0.84,  $p = 0.001$ ). Delayed cerebral ischemia occurred more frequently in patients with DAO than in patients without DAO (4.5% vs 2.9%,  $p = 0.059$ ).

**Conclusion:** DAO independently predicts less favorable functional outcome in patients with CeAD. Further research on vessel patency, collateral status and effects of revascularization therapies particularly in patients with DAO is warranted.

Link full text: <https://pubmed.ncbi.nlm.nih.gov/31757869/>