Introduction Tandem intracranial/extracranial occlusion presents a challenge due to the coincident risks of symptomatic intracranial hemorrhage (SICH) and carotid re-occlusion. Various anti-thrombotic regimens have been reported with mixed results for SICH, but infrequent analysis of cervical carotid patency. We present a single center, retrospective analysis of tandem occlusion patients treated with low dose eptifibatide, with emphasis on rates of hemorrhage and rigorous reporting of cervical carotid artery patency. The work is unique due to the completeness of vessel imaging follow-up.

Materials and Methods N=58 patients were administered a low dose perioperative eptifibatide regimen (135 mcg/kg bolus, 1 mcg/kg/min infusion) during intracranial thrombectomy and extracranial carotid angioplasty ± stent placement. A prospective database was reviewed retrospectively for patient characteristics, clinical and imaging outcomes. Determination of SICH was per the SITS-MOST definition. Management of the intracranial occlusion by direct aspiration (ADAPT) or combination therapy (CAPTIVE) was per physician choice, as was management of the extracranial lesion with stenting or angioplasty alone. Patients were converted to dual oral anti-platelet therapy with aspirin and clopidogrel or ticagrelor if the 24 hour ultrasound and CT demonstrated carotid patency and no significant hemorrhage.

Results The average age and NIHSS were 64 and 16, respectively, with tPA use in 43% of cases. ASPECTS scores were 8–10 in N=47 (81%) and 5–7 in N=11 (19%). N=38 patients had stenting acutely, while N=20 had angioplasty alone, 6 of whom had delayed endarterectomy or stenting within the first week. All patients had brain imaging within 24–36 hours. Any evidence of intracranial hemorrhage was present in n=18 (29%), mostly petechial or small subarachnoid hemorrhage, with only one case of SICH (2%). Technical success (TICI 2B or 3) was achieved in N=56 (96%). 90 day MRS was documented by phone or in person in 57/58 patients (one patient lost to follow up). 90 day MRS of 0–2 was achieved in N=42 (72%), with MRS of 6 in N=5 (9%). All patients had duplex within 36 hours. There were N=4 (7%) acute re-occlusions, all in patients originally treated with stenting. N=49 patients had carotid imaging at 30–60 days (5 deceased, 3 not done, 1 lost to follow up), with an additional N=3 re-occlusions (6%), two of whom had stents and one angioplasty alone. Carotid artery patency at 30–60 days for patients imaged was 86% (42/49). No acute or delayed carotid occlusion was associated with clinical decline, and 5/7 (71%) had 90 day MRS of 0–2.

Conclusion Within this cohort, low dose eptifibatide in the tandem occlusion population seemed to be safe with a low incidence of SICH. Cervical carotid artery re-occlusions did occur with an overall 30–60 day patency of 86%. Re-occlusion was not associated with clinical decline in any patient. In the absence of a control arm, it is unknown whether cervical carotid patency is improved with low dose eptifibatide compared to any other regimen. All conclusions are limited by the small sample size, retrospective nature of the study, and lack of core lab adjudication of outcomes.

Disclosures A. Jost: None. C. Roels: None. M. Brown: None. R. Janjua: None. D. Heck: 2; C; Stryker.