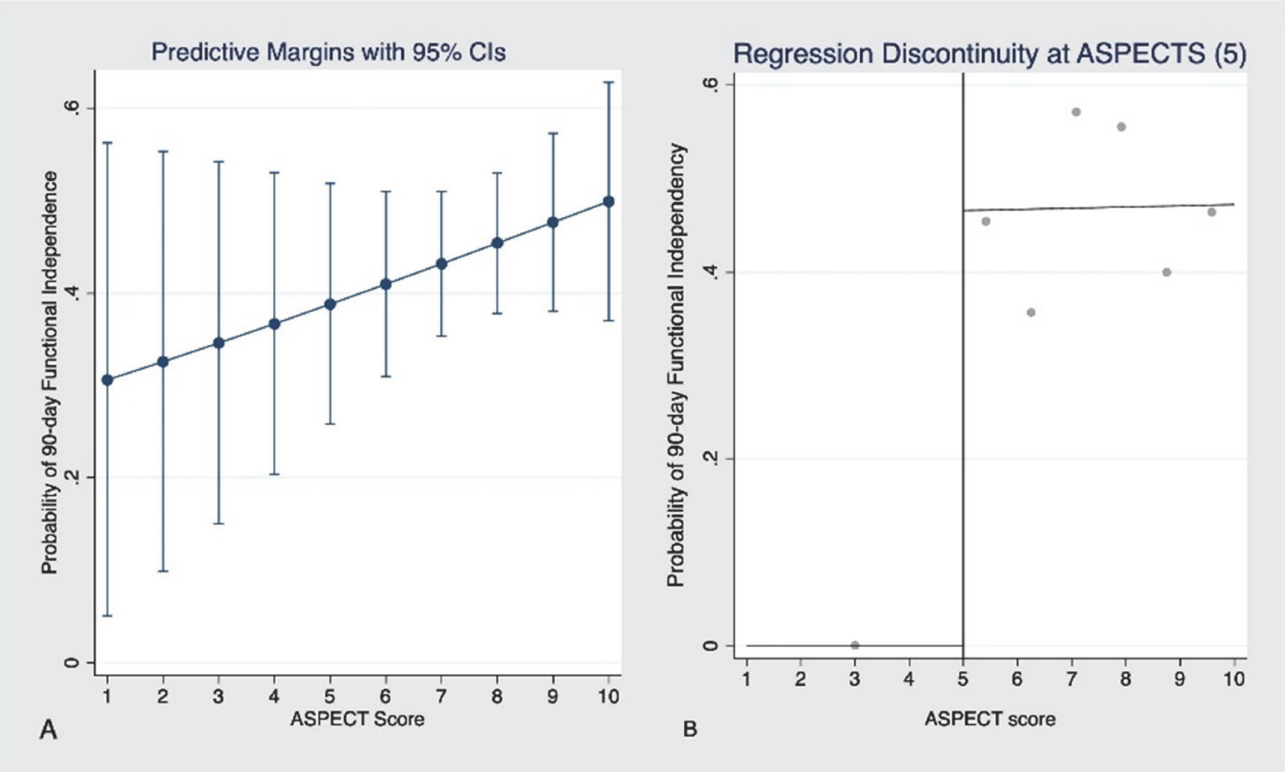

Abstract E-010 Figure 1

continuous fashion. In patients with ASPECTS close to 5, EST continued to provide significant treatment effect. These findings argue against the use of strict ASPECTS cutoffs for EST eligibility.

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E-011 FACTORS INFLUENCING THROMBECTOMY DECISION-MAKING FOR PRIMARY MEDIUM VESSEL OCCLUSION STROKE

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Background Medium-vessel occlusions (MeVOs) are the second most frequent cause of acute ischemic stroke (AIS) and patients often have poor clinical outcome if treated with best medical management alone. Alteplase recanalization rates have been shown to range from 21-43% in primary (de-novo occurring) MeVOs, indicating a need for a more effective therapeutic option like endovascular treatment (EVT). However, no clear guideline recommendation for EVT in these patients exists. We explored stroke physician's willingness to perform endovascular treatment (EVT) for primary MeVO stroke in an international online cross-sectional survey.

Methods In the survey MeVO-Finding Rationales and Objectifying New Targets for IntervEntional Revascularization in Stroke (MeVO-FRONTIERS), we showed survey participants four patients with primary MeVO stroke (six scenarios per case) and asked whether they would treat the described patients with EVT. Multivariable logistic regression with clustering by respondent was performed to assess factors influencing the decision to treat.

Results Overall, 366 participants (56 women; 15%) from 44 countries provided 8784 answers to 24 scenarios. Most physicians (59.4%, 5204/8784 responses) would treat patients immediately with EVT. European practitioners were more often in favor of immediate EVT (64.5%, 2771/4296) compared to those from the USA and Canada (51.4%, 1172/2280) and the rest of the world (Africa, Asia, Pacific region, South America, 57.1%, 1261/2208). Younger patient age (incidence-rate ratio [IRR] 1.24, 95% confidence interval [CI] 1.20-1.29), higher NIHSS (IRR 1.69, 95%CI 1.60-1.79), small core volume (IRR 1.35, 95%CI 1.26-1.43), and M2/3 occlusion site (IRR 1.06, 95%CI 1.00-1.13) were positively associated with the decision to treat with EVT. Interventionalists (62.0%; IRR 1.26, 95%CI 1.07-1.49), female physicians (63.8%; IRR1.13, 95%CI 1.01-1.26), physicians aged 31-40 or 60-70 years (65.8%; IRR 1.41, 95%CI 1.06-1.89; and 60.2%; IRR 1.51, 95%CI 1.05-2.19, respectively) were more likely to treat MeVO patients immediately with EVT.

Conclusions Most physicians in this survey would treat MeVO stroke patients immediately with EVT, supporting the need for more robust clinical evidence.

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E-012 SHEATHLESS WALRUS TECHNIQUE FOR TRANSRADIAL MECHANICAL THROMBECTOMY: TECHNICAL DESCRIPTION AND INITIAL EXPERIENCE

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Introduction The field of neurointervention is experiencing a paradigm shift towards a "radial first" practice, under the premise that transradial approach (TRA) has less post-procedural pain, early deambulation, lower complications related to the access-site and shorter hospital stays than transfemoral approach (TFA). However, recent evidence from our own institution demonstrated that the restricted range of mechanical thrombectomy devices that can be used through 6F sheath in TRA translates into an association with inferior outcomes when compared to TFA. Large-bore aspiration catheters and balloon-guide catheters (BGC) can only be used through 8F sheath and are essential to achieve a faster and successful recanalization within fewer passes. The Walrus device is a variable stiffness 8F BGC that accommodates the majority of the most used thrombectomy devices. We describe here a novel approach, the Sheathless Walrus Technique, which allows the insertion of an 8F BGC through the radial artery in carefully selected patients, bringing the full range of devices available and translating the effectiveness of TFA mechanical thrombectomy into the TRA. We also report the initial experience with this technique at our institution.

Methods We performed a retrospective chart review of consecutive patients who presented with acute ischemic stroke due to large vessel occlusion at our institution between December 2020 and April 2021. Patients who underwent mechanical thrombectomy via TRA with the Sheathless Walrus technique were included. Demographic information, clinical characteristics and procedural details were collected.

Results Nine patients were included. Median age was 77 years and 6 (66.7%) were male. Median time from onset of symptoms to wrist puncture was 241 minutes. Seven patients (77.8%) had mRS≤2 at baseline, and median NIHSS at admission was 12. Median radial artery diameter was 2.65mm. Combination of stent-retriever and large-bore aspiration catheter was used in 7 patients, while aspiration catheter alone was used in 2 patients. Two patients required 2 passes, while 7 patients achieved successful recanalization (mTICI 2b-3) within a single pass. There were no intra-procedural complications. None of the patients experienced any intracranial hemorrhage post-procedure.

Conclusions In this initial experience, the Sheathless Walrus technique was shown to be feasible and safe in carefully selected patients at our institution. The importance of this technique consists in bringing the full range of mechanical thrombectomy devices to the TRA.

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E-013 IMAGE GUIDANCE AS TOOL FOR ARTERIOTOMY CLOSURE IN PATIENTS WITH DIFFICULT ANATOMY

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Introduction The usage of closure devices such as MynxGrip and Angio-Seal VIP is generally not recommended in the setting of difficult anatomies such as arterial pathology at the site of access and thin body habitus where there is little room for the extravascular portion of the plug. We describe techniques using image guidance for closure device deployment in patients with such anatomy using example cases.

Materials and Methods For patients with arterial pathology at the site of access, fluoroscopic guidance is used to determine the safest location to deploy the intravascular balloon component of MynxGrip. Patient A is an elderly man with chronic aortic dissection which extends into the common femoral arteries (CFA) bilaterally. The sheath was navigated to the larger lumen of the chronic dissection under fluoroscopy with roadmap overlay prior to insertion of the MynxGrip device. The balloon is inflated under visualization with a 50:50 mixture of contrast and saline. The balloon was then retracted under continuous visualization and the extravascular sealant was deployed without issue. Patient B is an elderly man with atherosclerosis of the right CFA. under fluoroscopy with roadmap overlay, the sheath was retracted slightly to a relatively disease-free segment of the artery prior to insertion of the MynxGrip device. The balloon was again inflated under visualization with a 50:50 mixture of contrast and saline and retracted to the arteriotomy where the extravascular sealant was deployed. For patients with thin body habitus, use of hydro-dissection can temporarily modify anatomy by increasing the distance between skin and superficial arterial wall at the access site. Under real-time sonographic guidance, an angled 25-gauge needle was navigated into the subcutaneous tissues between the artery and skin, and Lidocaine and sterile saline