diverters for a better understanding of comparative safety and effectiveness among the different devices.

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E-130 USE OF WALRUS BALLOON GUIDE CATHETER FOR PROXIMAL FLOW ARREST DURING NEUROINTERVENTIONAL PROCEDURES

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Introduction The use of balloon guide catheters (BGCs) for proximal flow arrest during neurointerventional procedures is limited due to incompatibility of these catheters with large-bore aspiration catheters and difficulty in device navigation. The objective of our study was to describe the use of Walrus (Q'Apel Medical, Fremont, CA), a new 8-French (F) BGC, with a variety of aspiration catheters and procedures requiring flow arrest.

Methods Consecutive cases using Walrus BGCs for proximal flow arrest during mechanical thrombectomy for acute stroke cases was recorded. Procedure indication, vessel occlusion site, technique, first-pass effect (modified thrombolysis in cerebral infarction score of 2C or 3 after first recanalization attempt), and complications were recorded and evaluated statistically.

Results Our study included 57 patients: all (100%) underwent mechanical thrombectomy. Besides mechanical thrombectomy, the Walrus BGC was used in conjunction with the following techniques: stent retrieval in 2 patient (3.5%), Solumbra in 41 (71.9%), and aspiration-first in 14 (24.6%). Eight different aspiration catheters were used in 56 of these 57 procedures. First-pass effect was achieved in 36 (63.2%) of 57 procedures. Four cases (7.0%) experienced intraoperative complications and 2 (3.5%) died during in-hospital stay.

Conclusion Our study demonstrates Walrus BGC as an excellent 8F navigable guide catheter compatible with most available aspiration catheters. With a larger inner diameter and compatibility with most available aspiration catheters, it can be used to achieve proximal flow arrest during mechanical thrombectomy and possibly for other neurointervention procedures in the future.

Abbreviations and acronyms ADAPT, a direct aspiration first pass technique; BGC, balloon guide catheter; F, French; FPE,

first-pass effect; ICA, internal carotid artery; ID, inner diameter; mFPE, modified first-pass effect; mRS, modified Rankin scale; mTICI, modified thrombolysis in cerebral infarction; OD, outer diameter; STRATIS, Systematic Evaluation of Patients Treated with Neurothrombectomy Devices for Acute Ischemic Stroke

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E-131 TRANSFEMORAL VERSUS TRANSRADIAL APPROACH FOR CEREBRAL ANGIOGRAPHY: A PATIENT PREFERENCE SURVEY

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Introduction The neurointerventional field is going through a paradigm shift towards a radial first approach, following lessons from interventional cardiology. The transradial approach for endovascular interventions have certain advantages over the transfemoral approach, such as less complications related to access-site, less post procedural pain, earlier deambulation and shorter hospital stay. To the best of our knowledge, there are no studies assessing the patients' preference for one approach over another.

Methods Our institution's prospectively maintained database of cerebral digital subtraction angiographies was retrospectively searched to identify patients who underwent both transradial and transfemoral approaches between January 2011 and January 2021. We included patients who underwent both approaches in distinct occasions within time period of the study and those who required switching from one approach to another during the same procedure. Electronic medical records of each patient were accessed to extract the phone number provided for clinical follow-up. Three medical students conducted phone interviews using a standardized questionnaire. Three contact attempts with 3 days of interval was made for each patient before considering them as lost to follow-up. Patients were interviewed with 2 major questions. The first was regarding their approach of choice for an eventual next procedure, having the options of radial, femoral or no preference. The second question addressed the reasons behind their choices, being able to choose as many as necessary from the following common complaints related to a cerebral angiogram: pain, bruising, complications, recovery time, mobility, failure of one approach and comfort of puncturing the respective area. If no preference, patients were asked if they think it is a physician's decision or if both approaches were similar to them.

Results Forty-four patients were successfully contacted. In response to the initial question "If you were to undergo a cerebral angiogram again, would you rather receive a radial or a femoral approach?", 70.4% answered "Radial", 20.5% answered "Femoral" and 9.1% said "no preference". From those patients who chose "Radial", the subsequent question "What reasons influenced your answer?" was answered as following: pain (48.4%), bruising (51.6%), complications (25.8%), recovery time (67.8%), mobility (29%), failure of the other approach (0%) and comfort of puncturing the

respective area (45.2%). From those patients who chose “Femoral”, the subsequent question “What reasons influenced your answer?” was answered as following: pain (55.5%), bruising (22.2%), complications (11.1%), recovery time (22.2%), mobility (33.3%), failure of the other approach (22.2%) and comfort of puncturing the respective area (0%). When those who answered “no preference” were further questioned “why?”, 75% answered “it’s a physicians’ decision” and 25% answered “similar experiences with both radial and femoral”.

Conclusions At our institution, most patients preferred transradial over transfemoral approach. Most common reasons included pain, recovery time and bruising. Although the effectiveness and safety of transradial approach for non-diagnostic neurointervention remains uncertain and continues to technically evolve, it may be the best option for diagnostic angiograms considering the patients’ preference.

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E-132 INTRA-ARTERIAL THERAPIES VERSUS STANDARD MEDICAL TREATMENT IN ACUTE BASILAR ARTERY OCCLUSION: SYSTEMATIC REVIEW AND POOLED ANALYSIS OF DATA FROM THE LAST 2 DECADES

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Background Management of acute basilar artery occlusion (BAO) remains a challenge, carrying high morbidity and mortality rates. Most evidence about BAO management comes from observational studies evaluating either intra-arterial therapies (IAT) or standard medical treatment (SMT). The optimal modality has not been determined.

Methods We performed a systematic review of all acute BAO studies published between January 2000 and October 2020. A pooled-analysis was performed to compare IAT and SMT.

Results Data from 4616 patients were pooled (IAT=3834, SMT=782). IAT had higher rates of good-outcome (31.7% vs. 20.6%; $P<0.001$), moderate-outcome (44.4% vs 18.6%; $P<0.001$), and lower mortality (33.2% vs. 45.3%; $P<0.001$). Unadjusted odds ratios (ORs) for good-outcome (OR 1.91, 95%confidence interval [CI] 1.56-2.33), and moderate-outcome (OR 2.68, 95%CI, 2.17-3.32) significantly favored IAT, whereas mortality (OR 0.55, 95% CI 0.47-0.64) significantly

favored SMT. After adjustments for age and National Institutes of Health Stroke Scale (NIHSS) score, ORs for good-outcome (adjusted OR [adjOR] 1.14, 95%CI 0.15-8.48), moderate-outcome (adjOR 1.75, 95%CI 0.22-14.08) and mortality (adjOR 1.39, 95%CI 0.38-5.11) did not significantly favor any modality. In a secondary analysis including only studies within the stent-retriever thrombectomy era (2009-2020), adjusted ORs for good-outcome (adjOR 2.51, 95%CI 1.01-6.19) significantly favored IAT, whereas moderate-outcome (adjOR 1.67, 95%CI 0.84-3.34) and mortality (adjOR 0.55, 95%CI 0.19-1.61) did not significantly favor any modality.

Conclusions Pooled-analysis showed superior outcomes for IAT. In the stent-retriever thrombectomy era, the odds of good outcome remain significant even after adjustments for age and NIHSS score, but randomized trials are needed to establish best management.

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E-133 ENDOVASCULAR THROMBECTOMY VERSUS STANDARD MEDICAL THERAPY ALONE IN ACUTE POSTERIOR CEREBRAL ARTERY OCCLUSION: A SYSTEMATIC REVIEW AND POOLED ANALYSIS OF LITERATURE

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Introduction Acute posterior cerebral artery (aPCAO) accounts for 5-10% of all ischemic strokes and can lead to significant disability involving a varied range of neurological syndromes with visual and cognitive deficits. In spite of this significant burden, these patients were largely excluded or under-represented in the major randomized trials of mechanical thrombectomy (MT), and the benefit of this modality over medical therapy alone remains controversial and uncertain.

Methods We performed a comprehensive systematic search of Pubmed, MEDLINE and EMBASE databases following the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) guidelines. We used keywords combined with Boolean operators to increase search sensitivity and specificity: “posterior cerebral artery”; “thrombolysis”; “thrombectomy”. Patients were allocated to pooled groups based on the