LONG-TERM FOLLOW-UP OF THE PCONUS DEVICE FOR THE TREATMENT OF WIDE-NECK BIFURCATION ANEURYSMS

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Purpose: Wide-neck bifurcation aneurysms (WNBA) remain challenging for the neurointerventionist and/or neurosurgeon despite many recent advances. The pCONus (Phenox, Bochum, Germany) is an emerging device for endovascular neck protection, we report the first long-term results of this device.

Methods: We performed a retrospective analysis of all consecutive intracranial WNBA treated with the pCONus. Patients’ characteristics were reviewed, procedural complications, angiographic (Roy-Raymond scale) and clinical outcomes were documented.

Results: Between January 2016 and September 2019, 43 patients (74% female, median age 56 [49–66] years) with 43 WNBA (mean width of 6.8 +/-2.1mm, dome/neck ratio of 1.3 +/-0.2 and neck of 5.2 +/-1.3mm) were included. A procedural angiographic complication was reported in 5 patients (12%), no patient presented a post-operative neurological deficit or long-term complication, mortality rate was 0%. At last follow-up (median of 46.5 months [38.3–51.7]), an adequate occlusion (complete and neck remnant) was observed in 37/43 patients (86%) and an aneurysm remnant in 6/43 (14%). Four patients (9%) needed retreatment. No in-stent stenosis or branch occlusion were depicted.

Conclusion: pCONus device provides a safe and efficient alternative for endovascular wide-neck bifurcation aneurysms management, with long-term stability.

Disclosures: A. Guenego: None. B. Lubicz: None.

E-030 FEASIBILITY AND SAFETY OF MECHANICAL THROMBECTOMY FOR SOLE PRIMARY ANGULAR ARTERY M3 AND M4 MCA OCCLUSIONS

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Introduction/Purpose: To evaluate the feasibility, safety, and outcome in patients with isolated angular artery occlusion who underwent mechanical thrombectomy for primarily receptive aphasia among other neurological deficits.

Materials and Methods: We retrospectively reviewed our prospectively maintained neurointerventional database from January 2018 to September 2021 and identified all patients who underwent mechanical thrombectomy for isolated angular artery occlusion. Patient demographics, procedural data, imaging follow up results and clinical outcome information was collected.

Results: We identified 4 patients, all men, with ages 36, 62, 63 and 81. Angular artery occlusion was located at the M3 or
Abstract E-030 Table 1  Patient overview and outcome

<table>
<thead>
<tr>
<th>Patient</th>
<th>Age</th>
<th>Baseline mRS</th>
<th>NIHSS</th>
<th>IV tPA</th>
<th>Number of Passes</th>
<th>Final TICI</th>
<th>Asymptomatic Intracranial Hemorrhage</th>
<th>NIHSS end of hospitalization</th>
<th>mRS at 3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>36</td>
<td>0</td>
<td>5</td>
<td>Yes</td>
<td>1</td>
<td>2c</td>
<td>Petechiae</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>81</td>
<td>0</td>
<td>5</td>
<td>No</td>
<td>2</td>
<td>2b</td>
<td>SAH</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>63</td>
<td>0</td>
<td>6</td>
<td>Yes</td>
<td>2</td>
<td>2a</td>
<td>SAH</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>62</td>
<td>1</td>
<td>23</td>
<td>Yes</td>
<td>1</td>
<td>2b</td>
<td>None</td>
<td>10</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Abstract E-030 Figure 1

M4 segment. The patient’s baseline mRS was 0 in 3 cases and 1 in 1 case. Comorbidities included hypertension, hypercholesterolemia, smoking and atrial fibrillation. The patients presented with NIHSS ranging from 5 to 23. Three patients received IV tPA. All mechanical thrombectomies were performed via femoral access under general anesthesia. Aspiration was the first line techniques in all cases. TICI 2B or greater was achieved in all cases. No post-procedure symptomatic hemorrhage occurred. On post-procedural cross-sectional imaging 2 patients showed mild thrombectomy related subarachnoid hemorrhage and one patient demonstrated petechial hemorrhage within the infarct. None of the hemorrhages were symptomatic. Patient mRS at 3 months was 1, 2, and 3. One patient did not reach the follow-up time point yet. Stroke etiology was determined to be cardioembolic in 3 cases and unknown in 1 case.

Conclusion Angular artery occlusions often present with disabling symptoms, commonly including speech deficits and limb paresis. Our limited data suggests that mechanical thrombectomy of the angular artery is feasible and safe. As with thrombectomy in other vascular territories, and amongst other factors, patient outcome is influenced by grade of reperfusion.

Disclosures A. Kuhn: None. J. Singh: None. F. Massari: None. A. Puri: 1; C; NIH, Microvention, Cerenovus, Medtronic Neurovascular and Stryker Neurovascular. 2; C; Medtronic Neurovascular, Stryker NeurovascularBalt, Q’Apep Medical, Cerenovus, Microvention, Imperative Care, Agile, Merit, CereVasc and Arsenal Medical. 4; C; InNeuroCo, Agile, Perfuze, Galaxy and NTI.

E-031 CONSERVATIVE MANAGEMENT FOR AN INCIDENTALLY FOUND PIAL ARTERIOVENOUS FISTULA IN AN ELDERLY PATIENT

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Introduction Pial arteriovenous fistulas (pAVFs) are rare vascular malformations requiring intervention in neonates and infants, but the natural course in the elderly population remains unclear.

Methods The authors describe the case of a 78-year-old male with transient symptoms of vertigo and diplopia. Workup including magnetic resonance imaging (MRI) and computerized tomography angiography (CTA) demonstrated no acute infarct or hemorrhage to explain the symptoms, but a vascular lesion was noted in the right cerebellum. Digital subtraction angiography confirmed the diagnosis of a right cerebellar pAVF, filling mainly from distal superior cerebellar artery branches, draining directly into dilated cortical veins with no obvious AVM nidus. After review of the literature and discussion with the patient, conservative monitoring with serial imaging was elected.

Results The patient was followed up with delayed CTA which demonstrated stable findings, and the patient continued to do well, remaining neurologically asymptomatic. pAVFs are often symptomatic lesions when found in neonates and infants, necessitating intervention. The findings of these lesions in the elderly (>70 years of age) are exceedingly rare in the literature and may follow a benign natural course.

Conclusion Without direct evidence of associated symptoms or pathologic findings, conservative management with serial imaging may be a reasonable option for pAVFs.

Disclosures D. Chang: None. R. Babadjouni: None. P. Eboli: None.

E-032 COMPARING EFFICACY OF PLATELET INHIBITION IN PATIENTS TREATED WITH PRASUGREL VERSUS CLOPIDOGREL UNDERGOING CEREBROVASCULAR STENT-ASSISTED EMBOLIZATION WITH FLOW DIVERSION

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Purpose Clopidogrel is frequently used in neuro-interventional radiology. Approximately 30% of patients are resistant to clopidogrel due to a multi-step mechanism of inhibition of the platelet P2Y12 adenosine diphosphate receptor (ADPR) resulting in increased predictive value of platelet reactivity unit (PRU) levels (measurement of responsiveness) and incidences of ischemic events.1 Prasugrel inhibits the same P2Y12 ADPR through a single-step mechanism of inhibition resulting in increased physiologic responsiveness.1 We seek to compare the efficacy of platelet inhibition in patients treated with prasugrel versus clopidogrel undergoing cerebrovascular stent-assisted embolization with flow diversion (CVSAEFD).