Presentation A 35 year-old lady presented with headache, tinnitus and papilloedema. LP showed raised CSF pressure. Aacetazolamide was commenced for presumed idiopathic intracranial hypertension with atypical phenotype but papilloedema persisted despite increasing dosage.

CTV showed a non-occlusive right sigmoid sinus filling defect with bilateral transverse sinus stenosis. Prominent, tortuous veins straddled the tentorium, indicating venous hypertension.

Angiography identified a dural A-V fistula involving the torcular and right transverse sinus. Tributaries included bilateral MMA and occipital artery branches, bilateral posterior meningeal branches via vertebral arteries, tentorial PCA branches, meningo-hypophyseal/infrolateral trunk and distal PCA branches. The transverse sinus, posterior aspect of superior sagittal sinus and straight sinus drained the fistula exclusively.

Intervention The fistula was embolised in two stages. At first stage, detachable coils were deployed along the right transverse sinus and Onyx18 was injected trans-arterially into the right middle meningeal and occipital feeders. At second stage, Onyx18 was injected into the right occipital artery feeders with good fistula/feeder penetration and satisfactory angiographic result.

Follow-Up Headaches and tinnitus due to fistula-induced raised ICP initially resolved but headaches recurred after a few months, again with raised CSF pressure. Angiography showed fistula resolution but with regression of the collateral venous outflow back to the normal sigmoid/jugular pattern. At this point, raised ICP was deemed secondary to left sigmoid stenosis, the right transverse sinus having been endovascularly occluded. The left transverse-sigmoid stenosis pressure gradient was 22mHg and a sinus stent was therefore inserted. CTV demonstrated satisfactory stent placement and disc swelling resolved.

Disclosure of Interest Nothing to disclose

4.3 CASE PROPOSAL – Acute ischemic stroke

**P005/44**

**USING THE PEGASUS-STENT WITH ANTITHROMBOGENIC PROPERTIES AND SINGLE ANTIPLATELET THERAPY IN A CASE OF THROMBECTOMY**

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Introduction Rescue stenting is used more and more in stroke cases with large-vessel-occlusion or medium-vessel-occlusion refractory to mechanical thrombectomy. The pEGASUS-stent (Phenox) represents a device which is equipped with a hydrophilic polymer coating(HPC) with antithrombogenic properties. The coating allows for implantation under single antiplatelet therapy, thus possibly reducing the risk of bleeding in acute stroke cases.
Case History A 79-year-old woman was rushed to emergency room due to left-sided hemiparesis and National-Institutes-of-Health-Stroke-Scale(NIHSS) of 14. Computed-tomography image showed an occlusion of right posterior communicating artery(PCOM). Intravenous thrombolysis was initiated. Due to relevant clinical deficits an additional mechanical thrombectomy-maneuver was decided (figure 1A+B).

There was a persisting stenosis following the first (figure 1C) and re-occlusion following the second thrombectomy-maneuver (figure 1D). After exclusion of intracranial hemorrhage with a flat-detector-CT, an interdisciplinary decision was made in favor of rescue-stenting of re-occluded PCOM. Considering the fact that the patient was already under medication with Edoxaban (transient ischemic attacks in the past) the pEGASUS-H PC-stent (3.5x15 mm) was chosen. Prior to stenting 300mg of Aspirin were injected intravenously. After angioplasty with NeuroSpeed-balloon-catheter 2x8 mm (Acandis) the stent could be successfully deployed (figure 1E) and complete reperfusion was achieved (figure 1F). Monotherapy with Aspirin 100mg/d was started and during 17 days of hospital stay no new neurological deficits or ischemic events occurred. After follow-up-MRI and CT-Angiography at day 3 showed no extensive infarction and confirmed patency of the stent, dual antiplatelet therapy with Aspirin(100mg/d) and Clopidoogrel(75mg/d) was started. The patient was discharged from hospital with an NIHSS of 2.

Disclosure of Interest Nothing to disclose

**COMBINATION TREATMENT APPROACH FOR DURAL ARTERIOVENOUS FISTULA INVOLVING PURE ISOLATED SINUS: OVERCOMING CHALLENGES WITH SURGICAL AND ENDOVASCULAR MODALITIES**

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Introduction Dural arteriovenous fistula (DAVF) is rare entity disease accounting approximately 1.5 per 1,000,000 persons per year. Transverse-sigmoid and cavernous sinuses is most involving site along all DAVF. While DAVF involving pure isolated sigmoid sinus which is extreme rare and this type have limited to treat by transfemoral, along opposite transverse sinus, transvenous embolization.

Case Presentation A 69-year-old woman with asymptomatic Borden III/ Cognard III DAVF involving the isolated sigmoid sinus underwent staged operation that open surgery using navigation system for exposure sigmoid sinus in operation room and transfer to angiosuite for transvenous embolization.

Conclusion Various modalities were introduced for treating DAVF including surgical disconnection, transarterial, transvenous embolization, stereotactic radiosurgery. However isolated sinus has limitation for treatment because of accessible route. Direct sinus cannulation and transvenous embolization can be most effective method for DAVF involving isolated sinus.

Disclosure of Interest The authors report no conflict of interest concerning the materials or methods used in this study or the findings specified in this paper

**DURAL ARTERIOVENOUS FISTULA PRESENTING AS PARKINSONISM, TREATED WITH TRANSENVENOUS EMBOLIZATION ACROSS FROM THE CONTRALATERAL SINUS USING A COIL BASKET AS A WALL: A CASE REPORT**

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Introduction It is rare for dural arteriovenous fistula (DAVF) appearing only in parkinsonism and cognitive impairment. This is associated with venous reflux/congestion.

Aim of Study We report a case with DAVF, presented with gait disturbance and cognitive impairment as the first symptoms, disappeared completely after transvenous embolization.

Methods A 78-year-old female admitted with a 3-month-history of gait disturbance, memory impairment, and tinnitus. She showed bradykinesia, narrow shuffling gait, and poor short-term memory, suggested as Parkinson’s disease by outpatient doctor.

T2-weighted MR revealed flow void clusters and dilated cortical/medullary veins in supratentorial/infratentorial region. MRA showed multiple high signals adjacent to the left transverse and sigmoid sinus (TS, SS).

Cerebral angiogram demonstrated an extensive DAVF of left TS with multiple feeders. There was a left-occipital arterial anastomosis, resulting in secondary fistular filling. Left SS was totally occluded with retrograde flow into superior sagittal sinus. There was a marked venous reflux into cerebral/cerebellar hemispheres.

Results We decided transvenous embolization of DAVF. The catheterization into left jugular-sigmoid-transverse sinus was failed due to complete obstruction of left SS. We approached to right internal jugular-sigmoid-transverse sinus and crossed torcular to left TS.

To prevent movement of coil by shunt flow, a basket by multiple detachable coils was formed as a wall at the bulbous portion of left TS. DAVF was completely occluded with TORNADO coils with normal flow direction of venous drainage. All symptoms were disappeared.

Conclusion Parkinsonism and cognitive dysfunction in DAVF is reversible when treated. Therefore, the prompt and exact diagnosis is important.

Disclosure of Interest Nothing to disclose

**TRANSARTERIAL EMBOLIZATION (INCLUDING HYPOGLOSSAL ARTERY) OF DURAL ARTERIOVENOUS FISTULA WITH MULTIPLE VENOUS VARICES: CASE REPORT**

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Introduction Aggressive dural arteriovenous fistula (DAVF) can result in venous ectasia forming varicose pouch. Treatment is inevitable because of high risk for hemorrhage. If hypoglossal artery are feeders, special care must be taken during embolization, because of lower cranial nerve(CN) deficit.

Aim of Study We report a case of DAVF with multiple venous varices, fed by middle meningeal artery(MMA) and hypoglossal artery.