

**P030/330 A CASE OF RUPTURED PERFORATOR BASILAR ANEURYSM TREATED WITH FLOW DIVERTER UNDER CANGRELOR**

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**Case presentation** A 62-year-old patient arrived at our emergency department with a severe headache lasting about 2 hours. Initial neurological examination showed mild confusion but no motor or sensory deficits (Hunt-Hess grade 2). Cerebral CTA revealed a moderate subarachnoid hemorrhage in the pre-pontine/pre-mesencephalic region without visible vascular malformations. Subsequent angiography confirmed the absence of malformations, and the patient's condition gradually improved.

On the fifth day, the patient experienced a recurrent intense headache and neck stiffness. CTA showed increased subarachnoid hemorrhage volume without arterial phase malformations. A tiny hyperdense spot posterior to the distal basilar artery indicated an anterior perforating aneurysm. Angiography confirmed the aneurysm and placement of a FRED X flow-diverter (3.5 x 22 mm) from the right P1 segment to the middle basilar artery.

10 minutes before deploying the flow-diverter, a standard bolus of intravenous Cangrelor was administered, along with a 12-hour maintenance infusion. Simultaneously, intravenous Flectadol (250 mg) was given. Approximately 30 minutes after completing the Cangrelor infusion, a CTA scan confirmed stent patency and ruled out worsening subarachnoid hemorrhage. A loading dose of Brilique (180 mg) followed the scan.

Around 7 days after the procedure, the patient's headache completely resolved, and a follow-up CT scan showed near-complete resolution of hemorrhagic findings and stent patency. At the 1-year follow-up, the patient's neurological status remained normal, with patent basilar artery and right posterior cerebral artery, and no evidence of a perforating aneurysm

**Disclosure of Interest** nothing to disclose

**P031/333 A VERY RARE COMPLICATION DURING MECHANICAL THROMBECTOMY: THE BREAKAGE OF THE ASPIRATION CATHETER'S TIP AND HIS RESCUE**

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**Introduction** With the advancement of mechanical thrombectomy techniques for the treatment of stroke, complications related to this type of treatment have also increased. Although the most common adverse events reported are: reperfusion hemorrhage, subarachnoid hemorrhage, clot embolization and vasospasm, a less commonly reported complication is breakage and retention of the thrombectomy devices. This type of complication not only results in failure of the mechanical thrombectomy procedure but, in addition, leave a thrombogenic foreign object inside the cerebral artery, which can potentially lead to clot propagation and stroke progression. Very few articles concerning this particular type of complications are reported in the literature.

**Aim of Study** We report a very rare case in which during a mechanical thrombectomy the tip of the aspiration catheter (Red 62) broke off intracranially and is subsequently recovered.

**Methods** The 68-year-old female patient, with NIHSS 16, presented a clot in right MCA M1. After one passage, using a combined technique, the aspiration catheter was damaged with persistence of its radiopaque tip within the MCA.

**Results** We decided to use a double stent-retriever technique ("Y-stent retriever") to catch the aspiration catheter's tip. After only one maneuver with this technique we manage to catch the tip and pull it out. The final results, after 30 minutes, was TIC12c.

**Conclusion** Breakage and retention of the thrombectomy devices represents a very rare cause of complications during mechanical thrombectomy but nevertheless possible. We have reported this case, with its related treatment, in order to help the management of this type of complication.

**Disclosure of Interest** Dr. D.G. Romano consultant and proctor for BALT Italy, Microvention Europe, Penumbra Inc.

**P032/347 TWO CASES OF MOYAMOYA-LIKE DISEASE WITH ASSOCIATED INTERNAL CAROTID ARTERY ANEURYSMS: MANAGEMENT AND ENDOVASCULAR TREATMENT USING FLOW-DIVERTERS**

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A 21-year-old patient came to our attention on suspicion of recurrence of a right internal carotid artery aneurysm previously treated endovascularly in another centre with stent and coils placement. The patient also had a history of previous occlusion of the ipsilateral middle cerebral artery with development of Moya-Moya-like collateralization. The preliminary angiographic study confirms the revascularization of the aneurysmal sac and also demonstrates the fracture of the previously placed stent. We then proceed to endovascular treatment by re-navigating the stent and placing multiple flow-diverting stents in a telescopic manner.

We also bring a companion case of another patient treated endovascularly in our centre for an internal carotid artery aneurysm with associated ipsilateral middle cerebral artery occlusion and development of Moyamoya-like syndrome.

**Disclosure of Interest** nothing to disclose

### 3.2 OTHER – Clinical management

**P033/39 RARE CASE OF BRILIANTA RESISTANCE MANIFESTING AS FLOW DIVERTER THROMBOSIS**

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**Introduction** Acute intraprocedural flow diverter thrombosis is a challenging and poor prognostic event during intracranial

aneurysm treatment. Intraprocedural flow diverter thrombosis in a case of brilliant resistance is a rare entity. Ticagrelor is a directly acting cyclopentyltriazolo-pyrimidine which does not require conversion into an active metabolite. It inhibits the P2Y12 receptors on platelets reversibly. Unlike clopidogrel and aspirin, resistance to ticagrelor is rarely reported. Here we report a case of post coiling recurrent intracranial aneurysm treated with flow diverter, presented immediately with hemiplegia on extubation subsequently managed with intra arterial tirofiban.

**Methods** A 28 year male patient with history of ruptured left A1 ACA aneurysm presented with small aneurysm recurrence on check 6 months DSA. Patient taken for flow diverter treatment. Pre-procedurely patient was loaded with aspirin and brilliant 5 days prior to procedure. Flow diverter deployment was uneventful. Post procedure patient was extubated. After extubation patient was found to have hemiplegia and aphasia. Immediate check angiography done which showed instant thrombosis. Subsequently Intra arterial tirofiban bolus was given with reopening of flow diverter stent was obtained.

**Results** Hemiplegia improved immediately.

Patient discharged hemodynamically stable. Patient started with prasugrel 10mg once daily. Platelet function test showed ticagrelor resistance.

**Conclusion** Acute intraprocedural flow diverter thrombosis is a rare complication in ticagrelor loaded patient. Intra-arterial bolus followed by intravenous tirofiban infusion seems to be efficacious and safe for acute intraprocedural flow diverter thrombosis. This case shows importance of checking antiplatelet resistance in patient who are even taking brilliant.

**Disclosure of Interest** Nothing to disclose.

**P035/258 VARIABILITY OF RESPONSE ON PROPHYLACTIC PRASUGREL FOR ENDOVASCULAR TREATMENT OF INTRACRANIAL ANEURYSMS: CLINICAL IMPLICATIONS**

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**Introduction** Prophylactic prasugrel for endovascular treatment of intracranial aneurysms has been introduced and increased, but HTPR (high on-treatment platelet reactivity) or LTPR (low on-treatment platelet reactivity) of prasugrel is not uncommon in clinical circumstances.

**Aim of Study** To investigate the predisposing factors of HTPR and LTPR on prasugrel premedication in the neurointerventional field and to determine its clinical implications.

**Methods** Between February 2016 and December 2020, 191 patients treated with coil embolization using prophylactic prasugrel in 234 intracranial aneurysms were the final candidates for this study. Patient and aneurysm characteristics, clinical status, and laboratory study values were carefully reviewed retrospectively. We performed risk factor analyses for HTPR and LTPR on prasugrel.

**Results** Ultimately, 20 patients (10.5%) had HTPR, and 74 patients (38.7%) were categorized as having LTPR. In multi-variable analyses, the factors related to HTPR were BMI

(adjusted OR 1.21, 95% CI 1.04–1.41,  $p = 0.01$ ), history of antithrombotics (adjusted

OR 3.79, 95% CI 1.39–10.34,  $p = 0.01$ ), and hematocrit (adjusted OR 0.91, 95% CI

0.84–0.99,  $p = 0.03$ ). Low BMI was the only risk factor for LTPR (adjusted OR 0.84,

95% CI 0.76–0.94,  $p = 0.001$ ).

**Conclusion** In the neurointerventional field, high BMI and prior use of antithrombotic agents were related to HTPR, and low BMI was associated with LTPR on prophylactic prasugrel.

High hematocrit levels decreased the risk of HTPR. When preparing endovascular treatment for intracranial aneurysms, attention to patients with these clinical features is required to address the possibility of ischemic or bleeding complications.

**Disclosure of Interest** Nothing to disclose

**P036/289 ENDOVASCULAR TREATMENT OF SUBDURAL HEMATOMA**

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**Introduction** Subdural hematoma is characterized by the accumulation of blood between the dura mater and the arachnoid meninges, and is most often caused by the rupture of bridging veins that connect the venous system of the brain with large venous sinuses within the dura, it can also occur due to laceration of blood vessels on the cortex. Subdural hematoma is mostly the result of head trauma and is the most common form of intracranial bleeding.

**Aim of Study** This presentation shows endovascular treatment of subdural hematoma in cases from our clinical practice.

**Methods** Case study, images and case report taken from five patients done in our angiosuite.

**Results** Results of presentation is to show new wave of treatment in patients with subdural hematoma and compare middle meningeal artery embolization versus conventional treatment for patients with subdural hematoma.

**Conclusion** Endovascular treatment of subdural hematoma is relatively new method of treatment in clinical practice and it will take over part of conventionally treated patient.

**Disclosure of Interest** Nothing to disclose.

**P037/294 TRANSRADIAL VERSUS TRANSFEMORAL APPROACH IN DIAGNOSTIC AND THERAPEUTIC NEUROVASCULAR INTERVENTION- NURSES REVIEW**

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**Introduction** The adoption of the transradial approach (TRA) has been increasing in popularity as a primary method to conduct both diagnostic and therapeutic interventions. As this technique gains broader acceptance and use within the neuro-endovascular community, comparing its complication profile with a better-established alternative technique, the transfemoral approach (TFA), becomes more important

**Aim of Study** This study aimed to show our challenges and experience in transfemoral and transradial approach in diagnostic and therapeutic neurointervention or combination of both.

**Methods** Our personal experience created from everyday workflow, difficulties and solutions in diagnostic and therapeutic neurointerventions and at the same time literature search of