lisbon stroke summit

April 04th - 05th 2025

Conference Centre Pestana Palace Lisboa

SCIENTIFIC PROGRAMME

07:30h Secretariat opening

08:30-09:45h **A MOST DIFFICULT CASE – "HOUSTON WE HAVE A PROBLEM"**
Posterior circulation thrombectomy with NIHSS < 10
Are we blind to new evidence?
Hosts: Jaime Pamplona & Teresa Mesquita

Case presentation Stroke Unit
CO 01 | **Pushing boundaries: Expanding basilar artery thrombectomy beyond guidelines**
Sara Rosa
How would you do it? | Audience voting
Neurology: João Pedro Marto
Interventional Neuroradiology: Hugo Dória

How we did it
Panel discussion
What do we know? | Pros and Cons
Jens Fiehler *vs* Daniel Strbian

Q&A

09:45-10:15h **KEYNOTE LECTURE**
"NOISE" on stroke rules and standard
Host: Ana Paiva Nunes
João Reis

10:15-10:45h **SYMPOSIUM**
Indications and techniques for revascularization of distal vessels
Manuel Moreu

10:45-11:15h Coffee Break

11:15-11:45h **"GO AHEAD, MAKE MY DAY": OFFICIAL WELCOME**
Hosts: Isabel Fragata & Ana Paiva Nunes

11:45-13:00h

A MOST DIFFICULT CASE – "HOUSTON WE HAVE A PROBLEM"

Thrombolysis after thrombectomy

Hosts: Hipólito Nzwalo & Ana Paiva Nunes

Case presentation Stroke Unit

CO 02 | Stroke in reverse

João Duarte

How would you do it? | Audience voting

Neurology: Ricardo Varela

Interventional Neuroradiology: Lia Neto

How we did it

Panel discussion

What do we know? Pros and Cons

Urs Fischer *vs* Omer Eker

Q&A

13.00-14:00h Lunch

14:00-15:15h

A MOST DIFFICULT CASE – "HOUSTON WE HAVE A PROBLEM"

Acute stenting in patients with AF – Is there space for hypocoagulation alone?

Hosts: Catarina Fonseca & João Pedro Filipe

Case presentation Stroke Unit

CO 03 | Surgery, stroke and synergy: The triple challenge demanding triple therapy

Eduarda Cruz Alves

How would you do it? | Audience voting

Neurology: Luís Fontão

Interventional Neuroradiology: José Manuel Amorim

How we did it

Panel Discussion

What do we know? | Pros and Cons

Mira Katan *vs* Francisco Mont'alverne

Q&A

15:15-15:45h

KEYNOTE LECTURE

Endovascular treatment of large core stroke

Host: Isabel Fragata

Raul Nogueira

15:45-16:15h

SYMPOSIUM

Penumbra

The role of the red catheters family (43/62/68/72/78) in acute stroke thrombosis

Federico Ballenilla

16:15-16:45h Coffee Break

16:45-18:00h

A MOST DIFFICULT CASE – "HOUSTON WE HAVE A PROBLEM"

IV thrombolysis beyond the boundaries

Hosts: Luisa Rebocho & Alexandre Amaral e Silva

Case presentation Stroke Unit

CO 04 | **Thrombolysis in DOAC-Treated patients: Rethinking current approaches**

Helena Rodrigues

How would you do it? | Audience voting

Neurology: José Mário Roriz

Internal Medicine: Tiago Gregório

How we did it

Panel discussion

What do we know? | Pros and Cons

David Seiffge *vs* Tiago Moreira

Q&A

08:00h Secretariat opening

08:30-09:45h **A MOST DIFFICULT CASE – "HOUSTON WE HAVE A PROBLEM"**
AI in Stroke: Friend or foe?
Hosts: Bruno Maia & Ricardo Veiga

Case presentation Stroke Unit

CO 05 | AI on stroke: Man *vs* machine
Hugo Dória

How would you do it? | Audience voting

Interventional Neuroradiology: Mariana Baptista
Interventional Neuroradiology: Luis Albuquerque

How we did it
Panel discussion | Pros and Cons
What do we know?
Don Frei *vs* Rune Matthiesen

Q&A

09:45-10:15h **KEYNOTE LECTURE**
Treatment of medium and distal vessel occlusion: The limit of thrombectomy?
Host: João Reis
Urs Fischer

10:15-10:45h **SYMPOSIUM**
Double stentriever technique thrombectomy for the bifurcation clots: Our results from the BETYS study
Juan Carlos Llibre

AngioNautix

10:45-11:15h Coffee Break

11:15-12:30h

A MOST DIFFICULT CASE – "HOUSTON WE HAVE A PROBLEM"
Hyperacute *vs* acute intracranial stenting
Hosts: Luisa Fonseca & Gustavo Santo

Case presentation Stroke Unit

CO 06 | "Full Metal Jacket" - Intra and extracranial stenting in an anticoagulated patient
Stefanie Moreira

How would you do it? | Audience voting
Neurology: Carla Ferreira
Interventional Neuroradiology: Ângelo Carneiro

How we did it
Panel discussion
What do we know? | Pros and Cons
Manuel Moreu *vs* Isabel Fragata

Q&A

12.30-13:30h Lunch

13:30-14:00h

KEYNOTE LECTURE
The vertebral arteries: What have we learned?
Host: Vitor Tedim Cruz
Louis Caplan

14:00-14:15h

LECTURE
Going to the basics: Strategy to improve stroke network
Inês Carvalho

14:15-15:00h

A MOST DIFFICULT CASE – "HOUSTON WE HAVE A PROBLEM"
Thrombectomy, pushing the limits: Pre-morbidity & cost-effectiveness issues
Hosts: Diana Aguiar de Sousa & Catarina Frias

Case presentation Stroke Unit

CO 07 | Reperfusion therapy for stroke in centenarians – Is there a limit?
Rodrigo Lindeza

How would you do it? | Audience voting
Neurology: Miguel Rodrigues
Interventional Neuroradiology: Helena Guerreiro

How we did it
Panel discussion
What do we know? | Pros and Cons
Terry Quinn *vs* Raul Nogueira

Q&A

15:00-15:30h **"ELEMENTARY, MY DEAR WATSON"**

Top 5 Posters

15:30-15:45h **"SHOOT OUT THE LIGHTS"**

Closing remarks

Awards

- **Best Oral Communication** awarded by MC Medical by Palex
- **Best Poster** awarded by SPMI NEDVC Núcleo de Estudos da Doença Vascular Cerebral / SPAVC Sociedade Portuguesa do Acidente Vascular Cerebral

CO 01

PUSHING BOUNDARIES: EXPANDING BASILAR ARTERY THROMBECTOMY BEYOND GUIDELINES

Sara Rosa; João Duarte; Tiago Lorga; Jaime Pamplona; Marisa Mariano; Ana Paiva Nunes
Centro Hospitalar de Lisboa Central, EPE/Hospital de Santa Marta

Background: According to the latest guidelines (2024), basilar artery thrombectomy is only recommended in adult patients with acute ischemic stroke with National Institutes of Health Stroke Scale (NIHSS) ≥ 10 and posterior circulation Alberta Stroke Program Early CT Score (pc-ASPECTS) ≥ 6.
Objectives: We report a case of basilar artery occlusion in a patient with NIHSS ≤ 10 and pc-ASPECTS ≥ 6 that was treated with mechanical thrombectomy and showed favorable outcome.
Clinical case: A 33-year-old woman presented to the emergency room after noticing visual abnormalities and gait imbalance upon wakening. Her past medical history included sickle cell anemia complicated with thromboembolic events, namely left posterior cerebral artery (PCA) ischemic stroke. She was medicated with hydroxyurea and edoxaban. On admission, neurological examination revealed right hemianopsia (related to prior stroke), nystagmus and gait ataxia (NIHSS 3). CT angiography showed occlusion of the basilar artery and left PCA (chronic), and acute ischemic lesions involving the left cerebral peduncle and pons on MRI. The patient underwent mechanical thrombectomy of the basilar artery, with complete recanalization. She was admitted to the Stroke Unit and showed favorable clinical progression, with return to prior neurological state (NIHSS 1). Etiological investigation including transthoracic echocardiogram, supra-aortic vessel and transcranial ultrasound, and blood work revealed no abnormalities. The diagnosis of ischemic stroke due to sickle cell anemia was assumed and the patient was discharged continuing the same medication.
Conclusion: Indications for posterior circulation thrombectomy have been expanding and treatment may be considered even in cases that do not fit guideline criteria.

CO 02

STROKE IN REVERSE

João Duarte

CO 03

SURGERY, STROKE AND SYNERGY: THE TRIPLE CHALLENGE DEMANDING TRIPLE THERAPY

Eduarda Cruz Alves[1]; João Macedo Cunha[1]; Paula Lopes Ferreira[1]; Rita Almeida Rodrigues[1]; Ana Rosa Gouveia[1]; Ivânia Alves[1]; Carolina Fernandes[2]; Ana Inês Martins[2]; Marco Almeida[2]; Sérgio Castro[3]
[1]Centro Hospitalar de Entre Douro e Vouga, EPE/Hospital de S. Sebastião; [2]Centro Hospitalar e Universitário de Coimbra/Hospitais da Universidade de Coimbra; [3]Centro Hospitalar de Vila Nova de Gaia/Espinho

Background: Stroke can be the result of synergic aetiological mechanisms. In patients who have recently undergone surgery, the risk of haemorrhage may limit the therapeutic strategy.
Objectives: To discuss concurrent stroke aetiologies in patient with recent major surgery and implications in antithrombotic therapy decisions.
Clinical case: A 59-year-old man with history of hypertension and anticoagulated atrial fibrillation was admitted to the emergency department due to a workplace fall, resulting in abdominal trauma with hemoperitoneum and hepatosplenic laceration requiring urgent surgery. Anticoagulation was stopped post-op, and 3 days later, the patient developed a sudden onset of global aphasia, right homonymous hemianopsia and right hemipa-

resis - NIHSS 12 points. A NCCT showed no acute infarction signs, and a CTA confirmed a left M1 occlusion and ipsilateral bulbar ICA high grade stenosis. Thrombectomy of the M1 occlusion was performed (final TICI 2c), and an early neurological condition improvement was achieved - NIHSS 4 post-procedure. Control NCCT showed left insular and frontoparietal infarct. During the stroke unit work-up, a cervical and transcranial Doppler ultrasound confirmed a 70% stenosis (PSV up to 250 cm/sec, ICA/CCA index of 3.7). After evaluation of the abdominal trauma by General Surgery and considering the high-risk stenosis, a carotid angioplasty with stenting was completed and the patient underwent triple therapy with dual antiplatelet therapy for 3 months (with an indication for subsequent simplification to mono antiplatelet therapy) and anticoagulation with a DOAC. On discharge, his neurological examination was unremarkable except for speech fluency, persisting some paraphasias and anomic hesitations.

Conclusion: In patients with stroke due to co-existing causes and a history of recent surgery, the risk of complications may limit the use of aggressive therapeutic strategies, requiring an individualized balance between the prevention of new ischemic events and the haemorrhagic risk.

CO 04

THROMBOLYSIS IN DOAC-TREATED PATIENTS: RETHINKING CURRENT APPROACHES

Helena Rodrigues; João Macedo Cunha; Luís Fontão; José Mário Roriz

Centro Hospitalar de Entre Douro e Vouga, EPE/Hospital de S. Sebastião

Background: Ischemic stroke is a leading cause of disability, and intravenous thrombolysis (IVT) remains the standard treatment when given promptly. Atrial fibrillation, a known major stroke risk factor, is increasingly being treated with direct oral anticoagulants (DOACs), and a significant proportion of patients present with ischemic stroke while on treatment with these drugs. Although current guidelines contraindicate IVT within 48 hours of DOAC intake, recent studies suggest it may be safe in selected cases.

Clinical case: An 89-year-old woman presented to the emergency room with sudden speech difficulty, two hours after symptom onset. Her medical history included hypertension, diabetes, dyslipidemia, and atrial fibrillation, managed with rivaroxaban 20 mg/day (taken that day). Neurological examination revealed global aphasia and right homonymous hemianopsia (NIHSS =8). Non-contrast brain CT scan and CT angiogram were negative for acute ischemic and hemorrhagic lesions, arterial occlusion or significant stenosis. Due to unavailability of a quick Xa activity assessment at our center, IVT with alteplase was administered after obtaining consent from the patient's family. A follow-up NCCT scan showed no new ischemic lesions or hemorrhagic transformation. The patient was discharged with slight right central facial paralysis and mild dysphagia (NIHSS =1).

Conclusion: We present a case of a patient with a disabling neurological deficit, short symptom duration, and no confirmed infarction or large vessel occlusion on imaging – all characteristics that favor thrombolysis in DOAC-treated patients – supporting recent observational evidence suggesting that IVT may be safe in carefully selected cases.

CO 05

AI ON STROKE: MAN *VS* MACHINE

Hugo Dória

CO 06

"FULL METAL JACKET" – INTRA AND EXTRACRANIAL STENTING IN AN ANTICOAGULATED PATIENT

Stefanie Moreira[1]; Mariana Gomes[1]; Raquel Figueiredo[1]; Sara Gomes[1]; Aurora Costa[1]; Anabela Câmara[2] Carla Ferreira[1]; José Manuel Amorim[1]
[1]Hospital de Braga; [2]Hospital Dr. Nélio Mendonça

Background: Carotid and intracranial stenting in anticoagulated patients is debatable, considering the need for dual antiplatelet therapy, the risk of restenosis, and the increased hemorrhagic risk.
Clinical case: A 43-year-old man, anticoagulated due to a mechanical prosthetic valve, with a history of cerebral venous thrombosis and multiple vascular risk factors. Admitted due to left labial commissure deviation and visual disturbances. Neurological examination revealed visual hemi-neglect and left-sided hemiparesis, MRC grade 4, with facial involvement (PACI, NIHSS 6). ASPECTS 10 and Angio-CT showed occlusion of the right internal carotid artery (ICA) at its terminal portion, with middle cerebral artery (MCA) perfusion via anterior circulation.
Mechanical thrombectomy was attempted with aspiration and combined technique, all unsuccessful; dissection of the cervical ICA occurred. During thrombectomy, stentretriever deployment showed partial recanalization of the MCA, but critical stenosis of the terminal ICA. After thrombectomy and repeated re-occlusion, intracranial stenting followed by balloon angioplasty ensued. Due to the instability of the cervical dissection, a carotid stent was also deployed (mTICI 2b). Both stents were implanted after administration of 1g of lysine acetylsalicylate and integrilin infusion. Dual antiplatelet therapy with ticagrelor and acetylsalicylic acid was maintained for six weeks, followed by acetylsalicylic acid indefinitely, alongside high-dose statin and anticoagulation. MRI showed subacute ischemic lesions and significant residual intracranial stent stenosis. At 30 days, both stents were patent, and the patient achieved full recovery (mRS 0 at 3 months).
Conclusion: The decision to place both stents was debatable but justified by the significant hemodynamic compromise and the need to ensure effective cerebral reperfusion.

CO 07

REPERFUSION THERAPY FOR STROKE IN CENTENARIANS – IS THERE A LIMIT?

Rodrigo Lindeza; Celina Poeta do Couto; António Tavares; Diana Melancia; Marisa Mariano; Mariana Baptista; Ana Paiva Nunes
Centro Hospitalar Universitário de Lisboa Central

Background: With the aging population, the acute management of stroke in very elderly patients represents an increasingly relevant and complex challenge. Historically, age-related comorbidities and frailty have excluded these individuals from clinical trials, limiting the assessment of the efficacy and safety of both intravenous thrombolysis (IVT) and endovascular thrombectomy (EVT) in this population.
Clinical case: We present the case of a 101-year-old woman, independent in activities of daily living, with a history of lymphoma, who presented to the emergency department with aphasia and right central facial paresis with 3 hours duration. A computed tomography (CT) scan showed no signs of acute ischemia, and CT angiography revealed an M2 segment occlusion of the left middle cerebral artery (MCA). The patient underwent IVT and was subsequently discharged home without neurological deficits.

The following year, at 102 years old, she returned to the emergency department with severe dysarthria, left homonymous hemianopsia, and left hemiparesis with brachial plegia, having last been seen well the previous day. CT and CTA revealed mild lenticulostriate hypodensity and an M1 occlusion of the right MCA. Mechanical thrombectomy was performed, achieving complete reperfusion without hemorrhagic complications. The patient showed partial neurological recovery and remained hospitalized, during which she developed a nosocomial infection. After clinical improvement, she was discharged to a senior care facility, where she passed away one month later.

Conclusion: This case highlights that age alone should not be considered a contraindication for acute stroke revascularization. In very elderly patients, it is particularly important to evaluate the cost-effectiveness of these treatments alongside the patient's pre-stroke functional status, potential for recovery, and risk of complications, keeping in mind that both IVT and EVT provide meaningful benefits, improving survival and reducing disability compared to conservative treatments.

PO 01

RARE THROMBOSIS OF A DEVELOPMENTAL VENOUS ANOMALY: THE PATH TO HAEMORRHAGIC VENOUS INFARCTION

Liliana Igreja; Francisca Costa; Luís Botelho; José Pedro Rocha Pereira; Ricardo Varela; Rui Felgueiras; Alexandre Mendes; Denis Gabriel
Centro Hospitalar do Porto, EPE/Hospital Geral de Santo António

Background: Developmental venous anomalies (DVAs) are the most common type of vascular malformation in the central nervous system, with an incidence of about 2%. They typically follow a benign course, however, they can rarely present with symptomatic haemorrhage and even more rarely with thrombosis of the collector vein.

Clinical case: We describe a 72-year-old male with a history of idiopathic Parkinson's disease and chronic hepatitis B, as well as a known right frontal DVA seen in a previous brain MRI, without any personal or family history of thrombotic events. He presented with a progressively worsening behavioural change over 3 weeks, characterized by apathy, accidental medication errors and visual hallucinations. An urgent MRI was performed, revealing multiple subcortical right frontal haemorrhagic lesions, associated with a dilated venous structure with spontaneous hypersignal on T1, suggesting thrombosis, along with other hyperintensities on T2/FLAIR in this region with diffusion restriction, suggesting ischemia in the context of thrombosis/venous overload. The patient started anticoagulation therapy and underwent angiography, which confirmed the partial thrombosis of the main DVA collector that converged to the superior sagittal sinus, without other underlying vascular malformations. Acquired thrombophilia and occult neoplasia were ruled out, and the patient was discharged with dabigatran, which was discontinued after 6 months upon confirmation of DVA recanalization.

Conclusion: Thrombosis of a DVA collector vein is a rare condition, in most described cases manifesting with seizures, sudden focal deficits, and/or headaches. The decision to initiate anticoagulation therapy is typically individualized based on haemorrhagic risk. In this case it allowed for recanalization and complete resolution of symptoms. Hepatitis B infection and liver cirrhosis are well-known risk factors for venous thrombosis, and there is data regarding their association with venous sinus thrombosis, but we found no reports of DVA thrombosis in patients with cirrhosis.

PO 02

FROM PREVENTION TO COMPLICATION: THROMBOCYTOPENIA AS A RARE SIDE EFFECT OF TICAGRELOR

Sofia Marinho Pinto[1]; Paula Kjöllerström[2]; Rita Lopes da Silva[2]; Isabel Fragata[3]
[1]ULS Arrábida – Hospital de São Bernardo; [2]ULS de São José – Hospital Dona Estefânia; [3]Serviço de Neurorradiologia Centro Hospitalar Lisboa Central

Ticagrelor is commonly used to prevent thrombotic events after stent placement. While generally well tolerated, ticagrelor-induced thrombocytopenia is a rare but potentially life-threatening complication that requires prompt recognition and management.

A 15-year-old male from Angola with a known history of G6PD deficiency, sickle cell disease, chronic anemia, leukopenia due to hydroxyurea, cerebral ischemic disease, cholecystectomy and appendicectomy, was found to have a saccular aneurysm of the right carotid cave measuring approximately 4×4 mm.

Endovascular flow-diverter stent placement was scheduled, and the patient started aspirin and ticagrelor five days prior. On the day before the intervention, preoperative workup re-

vealed worsening neutropenia (0.87× 10?/L, previously 2.56×10?/L) and thrombocytopenia (72×10?/L), despite normal levels one month earlier (188×10?/L). Hydroxyurea was suspended, and the patient underwent successful stent placement.

In the following days, the neutrophil count improved, but platelets continued to drop, reaching a nadir of 14×10?/L on the third postoperative day. A peripheral blood smear showed no schistocytes or platelet clumping. After consideration of other possible causes, drug-induced thrombocytopenia was suspected, leading to the replacement of ticagrelor with clopidogrel. Half a pool of platelets was administered, and high-dose prednisolone was initiated to suppress a potential immune-mediated process. The platelet count rapidly increased to 126× 10?/L within five days.

In conclusion, drug-induced thrombocytopenia should be considered once other potential causes have been ruled out. Given the widespread use of ticagrelor in neurovascular interventions, clinicians should remain vigilant for this uncommon but potentially serious complication.

PO 03

TRANSIENT FOCAL NEUROLOGICAL EPISODES IN CEREBRAL AMYLOID ANGIOPATHY: REDUCING UNNECESSARY TREATMENTS

Rita Nunes Rato; Miguel Peliteiro; Leonor Dias; Rafael Dias
Centro Hospitalar de S. João, EPE

Background: Transient focal neurological episodes (TFNEs) are brief, self-limited disturbances in motor, somatosensory, visual, or language functions that can occur in individuals with cerebral amyloid angiopathy (CAA). These episodes may mimic other transient neurological syndromes, presenting a diagnostic challenge.

Clinical case: A 66-year-old male (mRankin0), with no known vascular risk factors, presented with recurrent transient sensory disturbances. Symptoms included hypoesthesia of the left lower limb associated with incoordination, followed by involvement of the left upper limb. All symptoms resolved spontaneously within 10 minutes, with four occurrences in the previous week. Brain and CT angiography excluded acute ischemia and significant supra-aortic stenosis. Neurological examination and laboratory tests were unremarkable. Given the possibility of a transient ischemic attack (TIA), acetylsalicylic acid (ASA) and atorvastatin were initiated. During hospitalization, brain magnetic resonance image showed cortical laminar necrosis suggestive of blood-brain barrier disruption and sulcal subarachnoid hemorrhage (SAH). Multiple areas of cortical siderosis were observed in the frontoparietal and occipital regions. Electroencephalogram was normal. Based on these findings, a probable diagnosis of CAA was established, with the episodes of recurrent and stereotyped symptoms being interpreted as TFNEs, resulting from the involvement of contiguous cortical regions. ASA was discontinued while atorvastatin was maintained, considering hemorrhagic and vascular risk. Given the uncertain pathophysiology and the absence of new episodes, antiseizure therapy was not initiated.

Conclusion: TFNEs are associated with a high risk of future lobar intracerebral hemorrhage, highlighting the importance of distinguishing them from TIAs to prevent inappropriate antithrombotic therapy.

PO 04

CHALLENGES IN THE MANAGEMENT OF COMPLICATIONS ASSOCIATED WITH FLOW-DIVERTER

José Fins; Francisca Costa; Daniela Dinis; Viriato Alves; José Pedro-Rocha; Ricardo Varela
Centro Hospitalar do Porto, EPE/Hospital Geral de Santo António

Background: The flow-diverter device (FDD), placed at the level of an aneurysm neck to disrupt intra-aneurysmal flow, promoting its thrombosis, although effective, is not free from complications, with reported cases of embolism, branch occlusion, vessel injury and stent misplacement or migration.
Clinical case: A 58-year-old woman was electively admitted for the treatment of a saccular aneurysm of the supraclinoid segment of the right internal carotid artery through the placement of an FDD. The procedure went without complications, and the patient was discharged on acetylsalicylic acid (ASA) and ticagrelor. On the 5th day, she presented to the emergency department with a sudden onset of dysarthria, facial asymmetry and left arm weakness. A non-contrast CT scan showed no new alterations; however, a subsequent MRI revealed a diffusion restriction area in the right striatocapsular and insular region, as well as multiple foci of diffusion restriction in the right frontal, parietal, temporal, and occipital juxtacortical areas, consistent with recent ischemic lesions in the right middle cerebral artery (MCA) territory. Signs of hemorrhagic transformation were present in the basal ganglia. Thus, the antiplatelet therapy was adjusted to ASA and clopidogrel. A subsequent transcranial Doppler ultrasound (TCD) showed flow asymmetry between the MCAs, with a right/left ratio of 0.31, suggesting significant flow attenuation in the right MCA. A CT scan was performed, revealing a new area of hypodensity in the right superior temporal region. Given the imaging evidence of worsening, the antiplatelet strategy was reverted to the original regimen, leading to complete resolution of TCD findings and stabilization of clinical deterioration.
Conclusion: This clinical case illustrates some of the challenges associated with FDD. We believe that the subacute complication may be linked to the inefficacy of the antiplatelet therapy regimen. Additionally, we highlight the usefulness of TCD in the characterization of hemodynamic phenomena associated with these devices in an acute setting.

PO 05

MIDDLE CEREBRAL ARTERY STENOSIS IN A PORTUGUESE POPULATION: WHAT HAPPENED DURING FOLLOW-UP?

Gabriela Sousa[1]; Maria João Lopes[2]; Leonor Dias[1]; Cláudia Sousa[1]; António Bastos Leite[3]; Pedro Castro[1]; Elsa Azevedo[1]; Marta Carvalho[1]
[1]Centro Hospitalar de S. João, EPE; [2]Department of Clinical Neurosciences and Mental Health, Faculty of Medicine of University of Porto, Portugal; [3]Faculty of Medicine of University of Porto, Portugal

Background: Intracranial arterial stenosis is a frequent cause of stroke, mainly in Asian patients. Its evolution and impact on vascular events, cognition, and functional status in European patients are unknown.
Objectives: To assess the evolution of middle cerebral artery (MCA) stenosis in a Portuguese population and its correlation with vascular events, functional and cognitive status while exploring the link with risk factors and treatments.
Methods: Retrospective, single-center, longitudinal cohort study of Portuguese patients with MCA stenosis >50% at diagnosis but no significant extracranial stenosis, large or diffuse small vessel ischemic cerebral lesion. They were assessed in 2016 and followed up in 2024 with transcranial Doppler (TCD), cognitive (MMSE/MoCA), and functional (mRankin scale) status.

Results: Of 22 patients, 17 (77.3%) were male, mean age of 75.5 years, 4 (18.2%) died during follow-up, 1 (4.5%) due to stroke of unknown aetiology. Three patients had cerebrovascular events (13.6%). In 2016, 10 (45.5%) had moderate (50-70%) stenosis, and 12 (54.5%) had severe (>70%) stenosis. Among 18 patients reassessed, stenosis worsened in 3 (16.7%), remained stable in 7 (38.9%), and improved in 8 (44.4%). TCD showed significant reductions in systolic (102cm/s) and diastolic (68.2cm/s) MCA velocities ($p<0.001$). No statistical differences were found in functional ($p=0.125$) or cognitive (MMSE $p=0.627$; MOCA $p=0.326$) results. When comparing aggravated vs. non-aggravated (stable/improved) stenosis, no relation was found with demographics, comorbid stenosis or segment, symptomatic vascular disease, vascular risk factors, or antithrombotic treatment. However, patients on calcium channel blockers (CCB) more often showed non-aggravated stenosis (aggravated: n=0, 0% vs non-aggravated n=11, 73.3%, $p=0.043$).

Conclusion: This study suggests CCB may positively influence the long-term evolution of MCA stenosis, though clinical significance remains unclear as most patients showed stabilization or improvement regardless of functional or cognitive outcomes.

PO 06

MANAGING RECURRENT ISCHEMIA IN BASILAR ARTERY OCCLUSION: TO STENT OR NOT TO STENT

Mariana Gomes; Rita Coutinho; Raquel Figueiredo; Stefanie Moreira; Carla Ferreira; Miguel Quintas-Neves; Ângelo Carneiro; José Manuel Amorim
Hospital de Braga

Background: Basilar artery occlusion (BAO) is a life-threatening condition, with endovascular therapy (EVT) frequently regarded as an established treatment option. However, when associated with severe vertebro-basilar atherosclerotic disease, diagnosis and management become particularly challenging.

Clinical case: A 41-year-old male with vascular risk factors presented to the emergency department with cervical pain. While awaiting assessment, he developed acute neurological deterioration, with aphasia, pseudobulbar affect, and right-sided motor deficits (NIHSS 9). Brain CT showed a pc-ASPECTS of 10, and CT angiography confirmed BAO. Intravenous thrombolysis was administered, followed by EVT using a combined technique (aspiration catheter and stent retriever), resulting in TICI 3 reperfusion. Nevertheless, within 30 minutes, re-occlusion occurred, requiring a second EVT. A stent retriever was used to extract part of the thrombus, but small distal emboli persisted in the posterior cerebral arteries (TICI 2b). Despite initial clinical improvement, follow-up CT imaging revealed bilateral occipital and cerebellar infarcts. He was discharged on dual antiplatelet therapy, and at tree months follow-up he had improved significantly, presenting only with dysarthria (modified Rankin Scale of 1). Two months later, he returned with transient visual disturbances and imaging confirmed severe basilar artery stenosis, leading to discussion on further vascular assessment.

Conclusion: This case underscores the challenges of managing BAO in severe vertebro-basilar atherosclerotic disease, highlighting the risk of recurrent ischemia, and the need for tailored multimodal strategies, including vascular remodeling and long-term secondary stroke prevention.

PO 07

DISTAL AND POSTERIOR: HOW FAR IS TOO FAR?

Raquel Pontes Figueiredo; Mariana Gomes; Bruno Cunha; Stefanie Moreira; Ângelo Carneiro; José Manuel Amorim
Hospital de Braga

Backgroung: Mechanical thrombectomy (MT) effectiveness and safety in posterior cerebral artery (PCA) occlusions, particularly distally to P1 segment, remains controversial.
Objectives: To present a clinical case in which MT was used to treat an isolated distal PCA occlusion, in a patient with a low National Institutes of Health Stroke Scale (NIHSS), in whom intravenous thrombolysis was contraindicated.
Case report: We report a case of a previously independent 80-year-old woman, with a medical history of atrial fibrillation, who presented with a sudden onset of left-sided limb weakness, following anticoagulant discontinuation, while hospitalized due to a spontaneous lower limb hematoma, in another institution. Neurological examination revealed a NIHSS of 10, due to major deficits such as left homonymous hemianopia. Angiographic CT revealed an occlusion in the right PCA (P1 segment) and brain CT did not show any acute ischemic lesions. Thrombolysis was deemed to be contraindicated. Upon arrival at our institution, there was clinical improvement to a NIHSS of 4, after which repeated imaging showed downstream progression of the occlusion to the ipsilateral P3 segment. Due to persistent hemianopia, despite clinical improvement, MT was performed with direct aspiration first pass technique achieving complete recanalization. Patient demonstrated significant clinical improvement, with a final NIHSS score of 1, presenting only with mild residual left facial paresis.
Conclusion(s): This case simultaneously focuses on the therapeutic potential of MT for distal occlusions and low NIHSS, where its role remains under discussion. The observed favorable clinical outcome lays the groundwork for further discussion on individual, anatomical and technical conditions that may favor (or disfavor) MT in these specific cases.

PO 08

A CLASSIC CASE OF TACI OR SOMETHING ELSE?

Francisco Miguel Rodrigues; Rita de Sousa; Rui Pedro Pais; Pedro Barradas
Centro Hospitalar e Universitário de Coimbra, EPE/ Hospital Pediátrico de Coimbra

Background: The persistent hypoglossal artery (PHA) is a rare vascular anomaly that directly connects the internal carotid artery (ICA) to the basilar artery, altering normal cerebrovascular anatomy. It is often associated with hypoplasia or absence of the ipsilateral vertebral artery and posterior communicating artery, making the ICA the sole supply to posterior circulation. Recognition of these variations is crucial in acute ischemic stroke cases.
Objectives: This case highlights the clinical significance of PHA in the setting of total anterior circulation infarction (TACI) and its impact on stroke severity and prognosis.
Clinical case: A 78-year-old man presented with sudden right-sided motor deficit and aphasia. Neurological examination revealed severe stroke symptoms (NIHSS 26). Computed tomography angiography (CTA) demonstrated a left-sided PHA arising from the ICA, traversing an enlarged hypoglossal canal, and directly supplying the basilar artery. The contralateral vertebral artery was hypoplastic, and the posterior communicating artery was absent. The ICA was the only arterial supply to the posterior circulation, increasing the risk of extensive ischemia.
Results: Compared to a similar TACI case with normal vascular anatomy, this patient exhibit-

ed altered hemodynamics and a higher risk of extensive infarction. The lack of collateral circulation pathways rendered the brainstem and posterior territories vulnerable in case of ICA occlusion, with potentially fatal consequences.
Conclusion: Early identification of PHA is crucial in stroke management. This case emphasizes the need to recognize vascular anomalies in acute stroke settings, as they affect prognosis and therapeutic decisions. A thorough vascular assessment allows for better risk stratification and improved patient outcomes.

PO 09

BLESSED SHALL BE THE FRUIT AND ITS MOTHER: ACUTE STROKE TREATMENT IN PREGNANCY

Lia Freitas; Vitor Rego; Inês Gil; Helena Guerreiro; Francisco Raposo
Centro Hospitalar do Algarve, EPE/Hospital de Faro

Background: Endovascular thrombectomy has been shown to be an effective treatment for acute stroke, improving clinical outcomes in general population. Questions remain regarding certain groups of patients, such as pregnant women.
Objectives: Discuss endovascular stroke treatment in pregnancy and its technical considerations based on a clinical case.
Clinical case: A 35-year-old pregnant woman at 25 weeks' gestation, previously autonomous, with medical history of high blood pressure, obesity and pre-eclampsia in the previous pregnancy presented with acute onset of aphasia and right sided hemiparesis – National Institute of Health Stroke Scale/Score 8 (NIHSS). A computer tomography (CT) scan and CT angiography showed a small acute infarct in the left parieto-temporal cortex - Alberta Stroke Programme Early CT Score 9 - and left medial cerebral M1 segment occlusion. No recombinant tissue plasminogen activator (r-tPA) was administered. Special precautions were taken to reduce radiation exposure. An 8F arterial sheath was placed in the right femoral artery and thrombectomy was performed using a combined technique with Thrombolysis in Cerebral Infarction Scale recanalization of 3. Total time of recanalization after symptoms onset was 3h10 and total duration (groin puncture to recanalization) was 29min without maternal and fetal complications post-procedure. Reevaluation at 90 days showed a Modified Rankin Scale of 0 and NIHSS 2.
Conclusions: Pregnancy is a hypercoagulable state that confers an increased risk for ischemic stroke, specially in the setting of women with risk factors (e.g. smoking, high blood pressure, obesity).
Given the haemorrhagic and fetal risks associated with r-tPA, mechanical thrombectomy should be considered as a first and solo option treatment for ischemic stroke in all stages of pregnancy, taking into account the particularities of this group.
Protective measures against radiation exposure of the fetus should be assured: an alternative arterial access (e.g. radial), lead shielding, low-dose, pulsed fluoroscopy and narrow collimation.

PO 10

UNLOCKING THROMBECTOMY SUCCESS IN CHILDHOOD: A ENDOVASCULAR TREATMENT IN A CHILD WITH EDMD

Lia Freitas; Vitor Rego; Inês Gil; Helena Guerreiro; Francisco Raposo
Centro Hospitalar do Algarve, EPE/Hospital de Faro

Background: Children represent a small group of stroke patients, where vascular, cardiac, hematological and metabolic disorders have a special role.
Emery-Dreifuss muscular dystrophy (EDMD) is a rare neuromuscular disorder characterised

by progressive muscle weakness and early cardiac involvement. We report a case of a pediatric stroke (PS) in a child with EDMD that was successfully treated with endovascular thrombectomy.

Objectives: To enlighten the particularities of acute stroke and its endovascular treatment in childhood based on a clinical case.

Clinical case: A 11-year-old female previously autonomous, with medical history of EDMD presented with left sided hemicranial headache, mild disartria and right sided hemiparesis – Pediatric National Institute of Health Stroke Scale/Score 7 (PedNIHSS) – and new onset of atrial fibrillation. Magnetic resonance (MR) and MR angiography showed an acute infarction of left lentiform and caudate nucleus - Alberta Stroke Programme Early CT Score 8 - and left medial cerebral M1 segment occlusion. No recombinant tissue plasminogen activator was administered (> 4,5h window). A 6F right femoral arterial sheath was placed and hrombectomy was successfully performed using aspiration technique with Thrombolysis in Cerebral Infarction Scale recanalization of 3. Total time of recanalization after symptoms onset was 9h25 and total intervention duration was 23min. Reevaluation at 90 days showed a Modified Rankin Scale of 0 and PedNIHSS 3.

Conclusions: The etiology of PS is fundamentally different from adults, where cardioembolic causes and arteriopathies are the main factors. Besides that, the clinical presentation of PS is diverse and related to the age of the child and location of the stroke, and can range from seizures or other diffuse neurologic deficits in infants and focal neurologic deficits and/or focal seizures in children, which contributes to significant delays in the diagnosis. Mechanical thrombectomy should be considered for its treatment but there is still insufficient evidence in neonates or infants to make any recommendations.

PO 11

CONTRAST-INDUCED NEUROTOXICITY: A POORLY UNDERSTOOD CLINICAL ENTITY

Liliana Igreja; Ana Isabel Pereira; Ana Sofia Coelho; José Pedro Rocha Pereira; Viriato Alves; João Pedro Filipe
Centro Hospitalar do Porto, EPE/Hospital Geral de Santo António

Introduction: Contrast-induced neurotoxicity (CIN) is a rare complication following intravascular exposure to iodinated contrast agents. It is primarily associated with neurovascular and cardiovascular interventions, manifesting with a range of neurological deficits. The underlying mechanisms likely involve blood-brain barrier disruption, direct neurotoxicity and impaired neurovascular function leading to vasogenic edema.

Our aim is to highlight the clinical manifestations, imaging findings and management strategies through illustrative cases.

Clinical cases:

1) 55-year-old female who underwent an uncomplicated flow-diverter stenting procedure for an aneurysm of the left ICA. Post-procedure, she developed right-sided hemiparesis and global aphasia. A CT ruled out hemorrhagic or thromboembolic events. MRI revealed cortical edema in the left hemisphere, consistent with contrast-induced encephalopathy. Iv hydration and close neurological monitoring was initiated. The patient had only mild residual dysphasia at discharge.

2) 75-year-old female with chronic kidney disease on hemodialysis, who underwent thrombectomy for a AVF of the right upper limb and subclavian artery. The procedure was prolonged and required high volumes of contrast. Upon awakening, exhibited right hemispheric dysfunction, altered consciousness and seizures. Imaging showed contrast in subarachnoid space in the right hemisphere and acute ischemic lesions that did

not account for the full clinical presentation. The coexistence of CIN and vascular lesions due to hypoperfusion was assumed. The patient was managed with antiepileptics and steroids. Deficits gradually improved.

Conclusion: CIN should be considered in patients with acute neurological deficits following endovascular procedures, especially in the presence of risk factors such as chronic kidney disease. Imaging findings often include cortical edema. While typically self-limiting, CIN may necessitate supportive therapy. Given the lack of clinical guidelines, further studies are needed to optimize treatment strategies.

PO 12

WHEN YOU UP THE "ANTI": A SUPPORTING CASE REPORT

Ana Luísa Pires; Mariana Sant'Anna; Cátia Oliveira; Eduarda Cruz Alves; Paula Lopes Ferreira; Pedro Monteiro Moreira; Luís Fontão

Centro Hospitalar de Entre Douro e Vouga, EPE/Hospital de S. Sebastião

Background: Anticoagulation is a formal contraindication for intravenous thrombolysis (IVT) in acute ischemic stroke. However, recent studies indicate that IVT may be safe in patients with acute ischemic stroke of <4.5h duration and a prior dOAC intake <48h.

Clinical case: A 63-year-old independent man with a history of hypertension and rivaroxaban anticoagulation for atrial fibrillation presented to the emergency department with sudden-onset incomprehensible speech, beginning two hours before. The neurological examination was notable for severe motor aphasia. The initial NCCT scan showed a left frontal parasagittal hypodensity, and the CTA revealed a M3 segment occlusion of the left middle cerebral artery (MCA). Accessibility of the occlusion and intervention risks were thoroughly discussed with Interventional Neurorradiology and, weighing all his variables - baseline functional status, symptom onset <4.5h and the presence of debilitating deficits - off-label IVT was performed, with his family written consent. The procedure was uneventful and a follow-up NCCT scan 24 hours later showed no haemorrhagic transformation on the infarcted area. The patient had no complications during hospitalization and was discharged two weeks later with only a mild motor aphasia – NIHSS 1 and mRs 1.

Conclusion: Despite the 2021 European Stroke Organization recommendations, an increasing number of studies suggest that IVT in patients with acute ischemic stroke within 4.5h and a prior dOAC intake <48h, does not carry a higher risk of haemorrhagic complications and is not associated with worse long-term functional outcomes, compared to IVT in non-anticoagulated patients, highlighting the need for a revision of the current guidelines.

PO 13

BASILAR ARTERY OCCLUSION PRESENTING WITH LOW NIHSS: SHOULD WE TREAT?

Cátia Rocha Oliveira[1]; Ana Luísa Pires[1]; Pedro Pires[2]; Luís Fontão[1]

[1]Centro Hospitalar de Entre Douro e Vouga, EPE/Hospital de S. Sebastião; [2]Centro Hospitalar de Vila Nova de Gaia/Espinho

Background: Basilar artery occlusion (BAO) is associated with poor prognosis without treatment, particularly in patients with severe symptoms and high NIHSS at presentation. However, recent trials have not demonstrated a clear benefit of endovascular treatment (EVT) in all cases, especially in patients with low NIHSS at onset.

Clinical case: A 67-year-old woman with hypertension and atrial fibrillation (on rivaroxaban) presented to our emergency department at 11AM with diplopia and gait imbalance on wake up at 8AM. She was asymptomatic

when she went to sleep the night before. Two days earlier had stopped hypocoagulation for a colonoscopy. On neurological examination, she complained of binocular diplopia, without objective ophthalmoparesis or nystagmus and hypoesthesia of the left hemiface and upper limb – resulting in 1 on the NIHSS and postNIHSS scales. A NCCT scan showed no acute lesions and a CTA confirmed a top of basilar artery occlusion extending into the right P1 segment, with patent distal segments of both PCA, filled by the posterior communicating arteries. She didn't receive IV thrombolysis due to time since symptom onset. The decision was made to perform EVT, resulting in a final mTICI 2b (a small distal thrombus persisted in the right P3 branch). On the 24-hour post-procedure CT scan, a small right thalamic infarct was visible, with no other lesions. On examination, the patient had slight left central facial paresis and left arm hypoesthesia, which improved over the stroke unit stay. She was discharged with a slight central facial paresis and no other deficits, remaining completely autonomous (mRS 0).

Conclusions: Evidence on the efficacy of EVT in BAO patients with an NIHSS <10 remains limited. A recent trial focusing on this population found that while EVT did not significantly improve the likelihood of a favorable outcome (mRS 0-2 at 3 months), it may increase chances of an excellent outcome. This case of a BAO patient with low NIHSS successfully treated with EVT highlights that, in selected cases, EVT may enhance the likelihood of complete recovery and preserved functionality.

PO 14

TREATMENT OF MEDIUM VESSEL OCCLUSIONS: HOW FAR SHOULD WE GO?

Cátia Rocha Oliveira[1]; Eduarda Cruz Alves[1]; Marta Rodrigues[2]; Luís Fontão[1]

[1]Centro Hospitalar de Entre Douro e Vouga, EPE/Hospital de S. Sebastião; [2]Centro Hospitalar de Vila Nova de Gaia/Espinho

Background: While endovascular treatment (EVT) is well established as a safe and effective treatment for large vessel occlusion strokes, its efficacy in treating medium and distal vessel occlusions remains a topic of ongoing debate.

Clinical case: A 74-year-old man, autonomous (mRS 0), with a history of hypertension, dyslipidemia, and ischemic heart disease, presented to the emergency department at 10:30 AM. That morning, upon waking up, his wife noticed that his speech seemed slurred, and around 9:00 AM, he experienced increased difficulty using his left upper limb along with left facial paresis. However, by the time of admission, his symptoms had completely resolved, and he was asymptomatic. On neurological examination, he had only a mild facial asymmetry on the left side, scoring 1 on the NIHSS scale. A non-contrast CT scan revealed a right frontal and insular infarct. CT angiography showed an occlusion of the superior and inferior branches of the right middle cerebral artery. Thrombolysis was not performed due to the time elapsed since symptom onset. Despite the already established infarct in the superior branch territory, endovascular treatment of the inferior branch was discussed and decided to be performed. Thrombebectomy achieved effective recanalization (mTICI 2b result). After the procedure, the patient had an NIHSS score of 0, and the follow-up CT scan showed only the infarct already present at admission. He was discharged without deficits, remaining fully autonomous.

Conclusions: This case presents an example of a medium vessel occlusion successfully treated with EVT, with the added aspect that it was a very low NIHSS at presentation. The efficacy of EVT for medium and distal occlusions remains uncertain, as recent trials such as ESCAPE-MeVO and DISTAL did not show better outcomes with EVT treatment. Further research is needed to better identify which patients with medium and distal occlusions may benefit from EVT.

PO 15

MILD SYMPTOMS, MAJOR DECISIONS: EVT FOR BASILAR ARTERY OCCLUSION

João Duarte; Marisa Mariano; Diana Aguiar de Sousa; Ana Paiva Nunes
ULS São José, Lisboa

Background: Basilar artery occlusion (BAo) is associated with poor outcomes. While recent trials have demonstrated endovascular thrombectomy (EVT) benefits for BAo with moderate to severe deficits (NIHSS ≥10), evidence remains scarce for patients with mild symptoms. We present a case of a mildly symptomatic BAo successfully treated with EVT.

Clinical case: A 67-year-old man with vertigo syndrome, nephrolithiasis, and degenerative discopathy presented with sudden dysarthria and right-sided imbalance (onset 2 hours prior). Examination showed incorrect answers (1 out of 2), left gaze palsy, left flexor plantar reflex, and right indifferent reflex.

Brain CT scan and CT angiography (CTA) revealed an occlusion of the left vertebral artery (VA) V4 segment and proximal BA, with a hypoplastic right VA. Aspiration thrombectomy was performed due to the presence of a proximal basilar artery occlusion and the potential risk of deterioration, with further basilar artery stenting given the persistent atherosclerotic stenosis, achieving complete reperfusion (TICI 3).

Seven hours later, the patient worsened, developing fluctuating left hemiparesis, left central facial paresis, and dysarthria. A new CTA confirmed stent patency. MRI revealed multiple posterior circulation infarcts (pons, superior cerebellum, thalamus, and temporo-occipital regions).

The final diagnosis was posterior circulation stroke due to large-vessel atherosclerosis. After six days, the patient had persistent neurological deficits (left hemiparesis and left central facial paresis - NIHSS 9) and was transferred.

Conclusions: Performing EVT in mildly symptomatic posterior circulation strokes is controversial. A decision to perform EVT in this patient was made considering the presence of a proximal basilar artery occlusion and the potential risk of deterioration.

PO 16

BEYOND CARDIOEMBOLISM: THE ROLE OF CAROTID ATHEROSCLEROSIS IN RECURRENT TRANSIENT ISCHEMIC ATTACKS

Stefanie Moreira[1]; Mariana Gomes[1]; Raquel Figueiredo[1]; Sara Gomes[1]; Anabela Câmara[2]; Aurora Costa[1]; José Manuel Amorim[1]; Carla Ferreira[1]
[1]Hospital de Braga; [2]Hospital Dr. Nélio Mendonça

Background: Transient ischemic attacks (TIAs) indicate a high stroke risk. Identifying their etiology – cardioembolic, atherothrombotic, or hemodynamic – is crucial for prevention.

Clinical case: An 87-year-old man, independent (mRS 0), with no known comorbidities besides recently diagnosed atrial fibrillation (AF), on edoxaban 30 mg, experienced multiple transient episodes of language impairment and left brachial weakness (<30 minutes each). Upon admission to the emergency department, his neurological examination was normal (NIHSS 0). EKG confirmed AF. CT showed an old right cerebellar infarction. CT angiography revealed

left common carotid occlusion with partial bifurcation filling, 50% carotid bulb stenosis, and extensive collateral circulation.
Diagnosed with left carotid TIAs in the context of AF and carotid atherosclerosis. He was started on dual antiplatelet therapy (ticagrelor and acetylsalicylic acid), weight-adjusted enoxaparin, and a high-dose statin. Endovascular treatment was considered too high-risk due to the potential atheroembolic events.
Conclusion: Extensive collateral circulation suggests a chronic occlusion of the left common carotid artery, with stenosis and an unstable plaque at the bifurcation likely acting as the main sources of ischemic events. Subtherapeutic anticoagulation may have contributed to the cardioembolic component. Given the high procedural risks, both endovascular treatment and endarterectomy carried excessive risk. Optimized medical therapy approach can be considered the safest option.

PO 17

DECIDING IN THE LIMBO: DEEP CEREBRAL VENOUS THROMBECTOMY IN PEDIATRIC AGE

Cátia Mendonça Araújo; Matilde Drumond; Carolina Figueira; Andreia Forno; Mónica Vasconcelos; Tiago Catanho; Margarida Jardim; Paulo Rego Sousa; Gonçalo Silva; Hugo Dória
Hospital Dr. Nélio Mendonça

Background: Deep venous cerebral thrombosis (DVCT) is a life-threatening condition with high morbidity and mortality. While anticoagulation is the standard therapy, venous endovascular treatment may be life-saving in severe cases.
Objectives: To report a case of DCVT refractory to anticoagulation in a teenager with significant clinical decline, highlighting the role of venous thrombectomy in deteriorating cases despite anticoagulation.
Clinical case: A sixteen-year-old girl with ulcerative colitis and juvenile idiopathic arthritis presented to the emergency department with a worsening headache over weeks, characterised by nocturnal awakenings and refractory to analgesics, along with vomiting, fatigue and right-sided paraesthesia.
Neurologic examination showed lethargy, hypophonia, right-sided brachiofacial paresis, ipsilateral hypoesthesia and gait imbalance. CT and CT-venography revealed complete deep venous thrombosis and left thalamic hypodensity, prompting anticoagulation.
After being admitted to the Intensive Care Unit, she deteriorated within hours, developing aphasia, left conjugate eye deviation and lower limb paralysis. Follow-up CT showed bilateral thalamic hypodensity and swelling.
She was thus submitted to venous thrombectomy (combined technique using a stent retriever and an aspiration catheter) and intrasinus thrombolysis with alteplase, achieving partial recanalisation and clinical improvement.
Follow-up CT showed improvement of the thalamic swelling. MRI one week later revealed a small hematoma of the left thalamus, hemosiderin deposits and microbleeds.
Autoimmune and hypercoagulable workup was unremarkable. Genetic thrombophilia study is pending. She was discharged with right superior quadrantanopia and an otherwise unremarkable exam.
Conclusion: This case highlights a DCVT in which venous congestion progressed despite anticoagulation. DCVT carries a high mortality rate, particularly in cases with altered consciousness. In this case, the patient likely would have faced a fatal outcome without endovascular therapy.

PO 18

FOOLING THE BRAIN: TRANSIENT POSTICTAL HYPOPERFUSION MIMICKING STROKE

Ana Sofia Coelho[1]; Ana Luísa Pires[2]; Liliana Igreja[3]; Eduarda Cruz Alves[2]; José Pedro Pereira[3]
[1]Hospital Dr. Nélio Mendonça; [2]Centro Hospitalar de Entre Douro e Vouga, EPE/Hospital de S. Sebastião; [3]Unidade Local de Saúde de Santo António, Porto

Background: Transient postictal hypoperfusion is an under-recognised phenomenon that can mimic acute cerebrovascular events, posing diagnostic challenges, particularly in paediatric patients. While postictal deficits are well described, their correlation with neuroimaging findings can be misleading, potentially leading to unnecessary interventions.
Objectives: We present a paediatric case of focal postictal hypoperfusion initially suggestive of an acute ischaemic event, highlighting the role of neuroimaging in differential diagnosis.
Clinical case: An 8-year-old girl with history of a febrile seizure at age four, presented with vomiting followed by a focal seizure with ocular deviation, upper limb clonic movements and transient unresponsiveness. Postictally, she exhibited confusion, speech disturbance, right-sided hemiparesis and gait imbalance.
Brain NCCT was normal but CTA showed asymmetry of cerebral arteries, with relative hypoperfusion of the left hemisphere, raising concerns for ischaemia. MRI showed no ischaemia, haemorrhage or vascular malformations, and perfusion imaging revealed no hypoperfusion areas.
The patient improved with supportive management and antiepileptic therapy, regaining full neurological function within 24 hours. Electroencephalography confirmed a postictal state and extensive workup was unremarkable.
Conclusion: This case highlights postictal hypoperfusion as a stroke mimic, particularly in children. Recognising this entity and integrating neuroimaging findings can prevent misdiagnosis and avoid unnecessary thrombolysis or thrombectomy. Clinicians should consider repeat imaging when transient cerebrovascular abnormalities are suspected.

PO 19

WHEN THE EAGLE STRIKES: A CASE REPORT OF EAGLE SYNDROME WITH INTERNAL CAROTID DISSECTION

Sara Gomes[1]; Mariana Gomes[1]; Stefanie Moreira[1]; Leonor Francisco[2]; Sofia Lopes[1]; Octávia Costa[1]; Carla Ferreira[1]; José Nuno Alves[1]
[1]Hospital de Braga; [2]Unidade Local de Saúde do Alto Minho, EPE/Hospital de Santa Luzia

Background: Eagle syndrome is defined by an elongated styloid process greater than 30 mm in length and can be classified into two variants: classic and vascular.
The vascular variant occurs due to the compression of the internal carotid artery (ICA) or, less commonly, carotid artery dissection caused by the styloid process. It may present with symptoms such as headache, stroke, or transient ischaemic attack.
Clinical case: A 46-year-old woman, with no significant past medical history or recent head trauma, presented to the emergency department with transient speech disturbance and right facial asymmetry, each lasting a few minutes. She also reported two-week history of bilateral occipital headache of moderate intensity, with cervical irradiation. The neurologic examination was unremarkable.
Computed tomography (CT) scan revealed an elongated styloid process measuring more than 40 mm bilaterally, with no parenchymal lesions. A CT angiogram demonstrated a dissection flap of the cervical segment of both internal carotid arteries.
The patient was admitted to the stroke unit for observation and started on dual antiplate-

let therapy with aspirin and ticagrelor for a month followed by aspirin alone. She was discharged with no recurrence of deficits.
At her follow-up appointment, four months later, she repeated imaging showed a normal calibre and contour of both ICAs. Antiplatelet therapy was discontinued.
Conclusion: Eagle's syndrome is a rare condition that can cause bilateral ICA dissection and serious vascular complications, so physicians should be aware of its potential risks. Management can be either conservative or surgical, with the approach tailored to each individual case.

PO 20

DUPLICATED MIDDLE CEREBRAL ARTERY: A STROKE GAME-CHANGER

Ana Isabel Pereira[1]; Liliana Igreja[1]; Ana Sofia Coelho[2]; João Pedro Filipe[1]; João Xavier[1]; José Pedro Pereira[1]; Viriato Alves[1]
[1]Unidade Local de Saúde de Santo António; [2]Hospital Dr. Nélio Mendonça

Background: The presence of an accessory middle cerebral artery (MCA) is a rare anatomical variant that may influence stroke presentation and outcomes. We report a case of large vessel occlusion (LVO) with unexpectedly mild symptoms and minimal infarct burden.
Clinical case: A 74-year-old woman, independent in daily activities (Modified Rankin Scale 1), with a history of a left MCA infarction (2021) treated with thrombolysis, awoke with dysarthria and mild right-sided hemiparesis (NIHSS 6). CT angiography revealed a subocclusive left MCA M1 lesion and an ipsilateral ACA A1 occlusion. Despite the LVO, ASPECTS was 10, with no evident recent infarction. Given favourable collaterals, she was transferred for mechanical thrombectomy.
Digital subtraction angiography demonstrated the presence of an accessory MCA, which was occluded. A combined aspiration and stent retriever approach achieved full recanalisation (TICI 3). Post-procedure, NIHSS improved to 3. Follow-up imaging showed no new cortical ischaemic or haemorrhagic lesions.
Conclusion: This case highlights how an accessory MCA may mitigate the clinical and radiological impact of LVO. Recognising this variant is crucial in stroke assessment, as it may influence symptom severity, imaging findings and acute management decisions.

PO 21

OFF THE BEATEN PATH: A CASE OF INTERNAL CAROTID ARTERY AGENESIS

Daniel de Araújo; André Militão; Rui Matos
Centro Hospitalar de Setúbal, EPE/Hospital de São Bernardo

Background: Congenital agenesis of the internal carotid artery (ICA) is a particularly rare anomaly (<0.01%). Definitive diagnosis relies on angiographic identification of compensatory collateral pathways and associated bony landmarks to distinguish this entity from acquired pathologies such as chronic occlusion or dissection. Patients are usually asymptomatic due to collateral circulation, with diagnosis most often incidental, though neurological complications may occasionally arise from the altered vascular network.
Objective: To describe the angiographic features and collateral circulation in a case of left ICA agenesis.
Clinical case: A 76-year-old female with hypertension, diabetes, chronic vascular disease and a two-month history of progressive cognitive decline and loss of ambulation presented to the ER due to acute left-sided weakness. On admission, she exhibited drowsiness, severe dysarthria, left-sided hemiplegia and homonymous hemianopsia. CT imaging revealed a bilateral infiltrative supratentorial periventricular lesion and complete absence of the left carotid canal. Angio-CT showed ab-

sence of the left ICA, a left middle cerebral artery originating from the basilar artery via a hypertrophied posterior communicating artery, left anterior cerebral artery supply via contralateral cross-filling from the anterior communicating artery and a left ophthalmic artery arising from the ipsilateral external carotid artery. Following transient neurological improvement, she went on to develop a severe respiratory infection and, despite intensive care, died 1 week after initial admission.
Conclusion: ICA agenesis is a rare but potentially clinically significant anomaly that demands heightened diagnostic suspicion, particularly in stroke patients with atypical vascular imaging. Documenting such cases enriches understanding of collateral-dependent hemodynamics, informs risk stratification, and refines therapeutic strategies in anatomically complex cerebrovascular disease.

PO 22

A CLASSIC CASE OF TACI OR SOMETHING ELSE?

Francisco Miguel Rodrigues; Rita de Sousa; Rui Pedro Pais; Pedro Barradas
Centro Hospitalar e Universitário de Coimbra, EPE/ Hospital Pediátrico de Coimbra

Background: The persistent hypoglossal artery (PHA) is a rare vascular anomaly that directly connects the internal carotid artery (ICA) to the basilar artery, altering normal cerebrovascular anatomy. It is often associated with hypoplasia or absence of the ipsilateral vertebral artery and posterior communicating artery, making the ICA the sole supply to posterior circulation. Recognition of these variations is crucial in acute ischemic stroke cases.
Objectives: This case highlights the clinical significance of PHA in the setting of total anterior circulation infarction (TACI) and its impact on stroke severity and prognosis.
Clinical case: A 78-year-old man presented with sudden right-sided motor deficit and aphasia. Neurological examination revealed severe stroke symptoms (NIHSS 26). Computed tomography angiography (CTA) demonstrated a distal occlusion of the middle cerebral artery (M2-M3). Additionally, an absence of proper contrast enhancement on the left vertebral artery was also noted, which was then revealed to be associated with a PHA arising from the ICA, traversing an enlarged hypoglossal canal, and directly supplying the basilar artery. The contralateral vertebral artery was hypoplastic, and both posterior communicating arteries were absent. The left ICA was therefore the main arterial supply to the posterior circulation, increasing the risk of extensive ischemia.
Results: Compared to a similar case with normal vascular anatomy, this patient exhibited altered hemodynamics and a higher risk of extensive infarction. The lack of collateral circulation pathways rendered the brainstem and posterior territories vulnerable in case of ICA occlusion, with potentially fatal consequences.
Conclusion: Early identification of PHA is crucial in stroke management. This case emphasizes the need to recognize vascular anomalies in acute stroke settings, as they affect prognosis and therapeutic decisions. A thorough vascular assessment allows for better risk stratification and improved patient outcomes.

PO 23

EXPERIENCE WITH ANDEXANET IN THE REVERSAL OF HYPOCOAGULATION IN INTRACRANIAL HAEMORRHAGE

Carolina Gavancho; Marisa Mariano; Diana Aguiar de Sousa; Ana Paiva Nunes
Hospital de São José

Background: Andexanet alfa is a modified recombinant factor Xa (FXa) form. It is approved for the reversal of hypocoagulation

in patients taking direct oral anticoagulants with anti-FXa activity, specifically rivaroxaban and apixaban, with uncontrolled bleeding and/or life-threatening conditions. Studies in patients with intracranial haemorrhage (ICH) have shown less hematoma expansion, despite a higher rate of thrombotic events.

Objective: Present clinical cases of patients treated with andexanet alfa.

Methods: Retrospective study of patients treated with andexanet at Hospital de São José until December 2024.

Results: Of 13 patients included, ten were treated with andexanet for ICH, one for gastrointestinal bleeding and two for drug poisoning with anti-FXa drugs. In the ICH group, all patients were anticoagulated due to atrial fibrillation, four with rivaroxaban and six with apixaban. In nine patients, adequate hemostasis was achieved, evidenced by the absence of hematoma expansion in control exams within the first 24 hours. In the same group of patients, no major thrombotic events were found, but two patients had subclinical cerebral ischemic lesions on MRI, and four patients died due to medical complications. In the group treated for other indications, a thrombotic complication was reported (in this case, upper limb venous thrombosis), with no additional mortality recorded.

Conclusion: The results presented reflect a favourable experience with andexanet regarding the achievement of adequate hemostasis in patients with ICH without clinically significant thrombotic complications. Continued research is important to strengthen these findings and clarify less well-established points, such as thrombotic complications and the impact of this therapy on mortality.

PO 24

INTRACRANIAL STENOSIS AND VERTEBROBASILAR STROKE: A CASE REPORT

Filipa Nunes[1]; Guilherme Sacramento[2]; Teresa Mesquita[1]
[1]Hospital Prof. Doutor Fernando Fonseca; [2]Centro Hospitalar de Lisboa Ocidental, EPE / Hospital Egas Moniz

Introduction: Intracranial stenosis is a cause of ischaemic stroke, particularly in patients with cardiovascular risk factors. This condition is commonly associated with atherosclerosis, leading to luminal narrowing, impaired cerebral perfusion, and an increased risk of thromboembolism. The vertebrobasilar circulation is especially vulnerable to stenotic processes, often leading to fluctuating symptoms. Diagnosis relies on combined imaging with doppler, CT scan and angiography. Management includes medical treatment (antiplatelet therapy, high-dose statins) and, in select cases, endovascular intervention.

Case description: A 58-year-old male with coronary artery disease, type 2 diabetes, and hypertension presented with acute right-sided numbness (1h58min evolution) and four similar transient episodes in the previous two weeks. On admission, he was haemodynamically stable, NIHSS 4 (dysarthria, right facial palsy, right hemihypesthesia, hemiataxia).

CT angiography showed left vertebral artery stenosis and a floating thrombus causing >70% basilar artery stenosis. Thrombolysis was performed, improving symptoms (NIHSS 1). Brain MRI revealed multiple infarcts in the vertebrobasilar territory. The multidisciplinary team opted for medical management due to the non-occlusive thrombus.

Further studies confirmed significant basilar stenosis (>50%), distal left vertebral artery occlusion, and a positive right-left shunt. Cardiac evaluation showed no other embolic sources. The patient was discharged after four days (NIHSS 0) on dual antiplatelet therapy and high-dose statin.

Discussion: This case highlights the challenges of managing symptomatic vertebrobasilar stenosis. The floating basilar thrombus and positive right-left shunt raise concerns about atherosclerotic and embolic mechanisms. Given the good response to thrombolysis, absence of new infarcts, and resolution with medical therapy, a conservative approach was preferred over endovascular intervention. Close follow-up and strict secondary prevention are crucial to reducing recurrence risk.

PO 25

PEDIATRIC ARTERIAL ISCHEMIC STROKE: A PICTORIAL REVIEW OF DIFFERENT ETIOPATHOGENESIS

Cristiano Esteves; Carolina Cunha; Ângelo Dias; Graça Sá; Carlos Morgado; Filipa Proença
Centro Hospitalar de Lisboa Norte, EPE/Hospital de Santa Maria

Background: Pediatric arterial ischemic stroke (AIS) is an important cause of neurologic morbidity in children. Due to lack of awareness of pediatric AIS associated with overlapping risk factors and the variability of clinical presentation, diagnosis is often missed or delayed. However, early recognition and appropriate treatment are crucial for optimizing long-term functional outcomes, reducing morbidity and mortality, and preventing recurrent strokes. Neuroimaging plays a key role in achieving this goal. The occurrence of AIS in childhood involves age-specific peculiarities in risk factors, etiopathogenesis, clinical manifestations, and therapeutic approaches.
Objective: This pictorial review aims to summarize the different etiologies of pediatric AIS, highlighting the epidemiology and pathophysiology of each cause and discuss their relevance in stroke management.
Methods: We analyzed neuroimaging studies of patients with AIS under 18 years old from our neuroimaging department. Clinical data and imaging findings were studied.
Results: Congenital heart problems represent one of the most significant subsets of pediatric AIS patients, particularly during the first two years of life. Arteriopathies are the most important risk factor for childhood AIS, with a peak of incidence in preschool age. Focal cerebral arteriopathy has been described as an inflammatory process, often after a viral infection. In adolescence, systemic diseases are considered the main causes of AIS.
Conclusion: This study highlights the importance of accurately identifying the etiology of AIS in children, given the differences in etiopathogenesis and management. Pediatric age and presence of risk factors play a crucial role in the diagnosis.

PO 26

WHICH OCCLUSION TO TREAT? A COMPLEX CASE OF SEVERE EXTRACRANIAL ATHEROSCLEROSIS

João Duarte; Marisa Mariano; Diana Aguiar de Sousa; Ana Paiva Nunes
ULS São José, Lisboa

Background: Internal carotid artery (ICA) occlusion (ICAO) is a common aetiology of ischaemic stroke (IS). The occurrence of bilateral ICAO (BICAO) is rare, affecting less than 1% of patients with IS due to ICAO. We present a clinical case regarding an IS in a patient with BICAO associated with brachiocephalic trunk subocclusion.
Clinical case: A 56-year-old man was admitted to the emergency room after waking up with left-sided weakness. Clinical examination revealed left sensory hemineglect, anosognosia and dysarthria, as well as left central facial palsy, hemiparesis and hypoesthesia.
A CT scan revealed early ischaemia in the right middle cerebral artery (RMCA) territory (right lentiform nucleus and insula - ASPECTS 6). CT

angiography (CTA) revealed an occlusion of the M1 segment of the RMCA and the left ICA (the latter was more likely chronic), as well as a subocclusion of the brachiocephalic trunk - the anterior circulation was dependent of the left vertebral artery. An aspiration thrombectomy was performed on the RMCA, with complete reperfusion. The patient started dual antiplatelet therapy and high-dose statin, with neurological stability. A transcranial Doppler ultrasound revealed a complete right subclavian steal syndrome. The patient was discharged 5 days after the event with mild dysarthria, left central facial weakness and mild left hemiparesis, with indication to proceed with follow-up in a Vascular Surgery consultation.

A brachiocephalic trunk stenting was performed 1 month after the IS onset with the intent to optimise intracranial circulation, with no further neurological focal deficits.

Conclusions: BICAO is associated with high morbidity and mortality. In this case, the presence of a brachiocephalic trunk subocclusion provided a key opportunity to restore cerebral circulatory patency, with a good middle-term outcome.

PO 27

INTRACRANIAL STENTING IN ACUTE PHASE: WHEN NOT EVERYTHING IS STRAIGHTFORWARD

Francisco Soares Laranjeira[1]; Marisa Mariano[2]; Ana Paiva Nunes[2]
[1]Hospital da Luz Lisboa; [2]Hospital de São José

Intracranial stenting during the acute phase is not the first-line treatment for intracranial stenosis. However, when performed, dual antiplatelet therapy (DAPT) is crucial to prevent thrombotic events. The ideal regimen and duration remain debated due to the risk of hemorrhagic complications.

A 76-year-old woman with stage 4 chronic kidney disease and resistant hypertension was admitted with right hemiparesis and expressive aphasia. Upon admission, her blood pressure was above 200/100 mmHg, with right central facial paresis and mild dysarthria (NIHSS 3). CT angiography suggested stenosis/subocclusion of the proximal M2 segment of the left middle cerebral artery (MCA). MRI revealed an ischemic lesion in the left insular region, with perfusion imaging indicating hypoperfusion in the inferior MCA division. Cerebral angiography confirmed a subocclusive thrombus, which was aspirated, revealing severe stenosis and delayed circulation. During the procedure, transient hypotension worsened collateral circulation, leading to neurological deterioration. M2 stenting was performed, improving stenosis and cerebral circulation (TICI 3). Post-procedure, neurological deficits fully reversed, and imaging 24 hours later showed no new findings. The patient started aspirin and ticagrelor and was discharged. She was readmitted 96 hours later with a non-ST-elevation myocardial infarction and anemia. Coronary angiography revealed three-vessel disease, requiring surgical revascularization. Simultaneously, upper gastrointestinal bleeding was confirmed due to duodenal angiectasia and gastric vascular ectasia. Given her high hemorrhagic risk and prior intracranial stenting, DAPT could not be discontinued. Optimized medical therapy was continued, with reassessment planned in two months for potential deferred coronary revascularization.

This case highlights acute-phase intracranial stenting in a high-risk patient who initiated DAPT and subsequently developed a major hemorrhagic complication, potentially exacerbating preexisting coronary artery disease.

PO 28

INTERNAL CAROTID DISSECTION AND MIDDLE CEREBRAL ARTERY STROKE PRESENTING WITH ISOLATED HEMIBALLISMUS

Catarina Teles; Ana Carolina Chaves; Carolina Fernandes; Ana Brás; Luciano Almendra; Carla Cecília Nunes; Cristina Machado; Bruno Rodrigues; Gustavo Santo; Fernando Silva; Ana Inês Martins; João Sargento-Freitas
Centro Hospitalar e Universitário de Coimbra/Hospitais da Universidade de Coimbra

Background: Hemiballismus is a rare manifestation of stroke, most commonly associated with subthalamic nucleus and basal ganglia (BG) lesions, due to occlusion of the posterior cerebral artery. Less frequently, it is caused by cortical lesions (particularly frontal or parietal), being exceedingly rare in the insular cortex.
Case presentation: A middle-aged male patient, with history of untreated hypertension, presented with acute hemiballismus affecting the left upper and lower limbs. Brain computed tomography (CT) angiography showed a thrombus in the M2 segment of the right middle cerebral artery (MCA – M2). Considering the spontaneous clinical remission and low NIHSS, no thrombolytic treatment was given. Carotid doppler ultrasound found right internal carotid artery (ICA) dissection with a mobile mural thrombus, considered the most likely aetiology of the stroke. Control CT revealed recent ischemic lesions exclusively in the right insula, compatible with the site of occlusion. Patient started anticoagulation as secondary prevention, and blood pressure control.
Discussion: Hemiballismus as the main manifestation of insular stroke due to occlusion of MCA – M2, associated with ICA dissection, is an extremely rare association. The underlying pathophysiology might be due to insular-BG connections that, when damaged, may affect the indirect striatal pathway, resulting in hyperkinetic movements. The patient had no other symptoms suggestive of stroke or ICA dissection, making this case even more atypical.
Conclusions: This expands our understanding of insular stroke's potential clinical manifestations, which is crucial to avoid delayed diagnosis and management. It also highlights insula's role in motor control and BG pathways. The quick symptomatic remission supports that chorea/ballismus has better functional prognosis when caused by cortical lesions.

PO 29

STROKE STRIKES TWICE: CHALLENGES IN MANAGEMENT AND TREATMENT OF INTRACRANIAL ARTERIAL STENOSIS

Tiago Simões Oliveira; Marisa Mariano; Alberto Fior; Diana Melancia; Mário Alcatrão; Diana Aguiar de Sousa; Cristina Sousa; Ana Paiva Nunes
Centro Hospitalar de Lisboa Central, EPE/Hospital de Santa Marta

Background: Intracranial arterial stenosis (IAS) corresponds to luminal narrowing of large intracranial arteries. IAS is most often attributable to primary atherosclerosis, although embolic events and dissections can occasionally result in severe stenosis.
Clinical case: A 42-year-old male with hypertension, hypothyroidism, and obesity was admitted with dysarthria, right eye deviation, left facial palsy, and left hemiplegia upon waking. NIHSS 13. Brain CT (CTA) showed a right frontal-opercular-insular infarct with basal ganglia involvement due to right middle cerebral artery (MCA) occlusion. He underwent a mechanical thrombectomy. Early transcranial Doppler (TCD) examination showed no residual occlusion. Echocardiography revealed a global heart dilation, apical thrombus, and reduced systolic function. He was started on apixaban 5 mg and rehabilitation, with clinical improvement. Two months later, he returned with aggravated

left hemiparesis (NIHSS 6), anti-Xa <20 IU/ml. CTA showed a more distal M1 stenosis, confirmed by TCD and angiogram. Since he was clinically stable, and there was no blood flow delay on the angiogram, no acute mechanical intervention was performed. He was started on aspirin 100 mg id and apixaban 5 mg bid. During admission MCA velocities progressively increased during serial TCD evaluation and CTA showed worsening of the M1 stenosis, but the patient remained clinically stable, so no mechanical intervention was done. Brain MRI showed a new, small, right MCA territory infarct associated with a total M1 occlusion. He remained clinically stable during the follow-up.
Discussion: Among patients with transient ischemic attack or ischemic stroke due to symptomatic severe IAS, acute intervention with stenting or angioplasty remains uncertain as to whether it might result in improved patient outcomes. In this case, balancing the patient's clinical stability, normal blood flow on angiogram, and documented absence of anticoagulant therapeutic compliance, the best medical therapy was chosen for secondary stroke prevention, with a good patient outcome.

PO 30

DURATION OF ANTIPLATELET THERAPY AFTER CAROTID ARTERY STENTING – CURRENT TRENDS AND CASE REPORT

Mariana Guimarães-Ferreira; Isabel Fragata; Danila Kuroedov; Mariana Baptista; Patrícia Ferreira
Hospital de São José

Background: Post-procedure double antiplatelet therapy (DAPT) optimal duration has yet to be established, especially in patients with comorbidities such as atrial fibrillation (AF). The recommendation that garners the most agreement is to maintain it for at least three months post-procedure overall. However, patients with AF may benefit from shorter DAPT durations, followed by double antithrombotic therapy (DAT).
Objective: To discuss current trends on antiplatelet duration and present a relevant clinical case.
Methods: The evolution of post-interventional antiplatelet recommendations is reviewed and the latest trends are discussed. The case of a 79-year-old patient with AF and bilateral internal carotid artery stenosis, based on chart reviews, is presented.
Results: A 79-year-old patient with known atrial fibrillation underwent an acute phase right carotid stent placement followed by a 4-week period of DAPT and DAT thereafter. Due to progressive asymptomatic left carotid stenosis, approximately 2 years later the patient underwent left carotid stent placement, at which time the angiogram revealed an intrastent mild stenosis of the right carotid stent previously placed. After the second procedure, the patient was treated with the same DAPT regimen, but after 4 weeks switched to edoxaban alone. The patient remained asymptomatic during the whole study period, with no evidence of new ischemic events.
Conclusions: Although given shorter post-procedure antiplatelet therapy duration, there was no major progression of stenosis or new ischemic events. Importantly, the lack of strong evidence-based guidelines regarding antiplatelet therapy duration suggests the need for further clinical trials.

PO 31

MIDDLE CEREBRAL ARTERY STENT RE-STENOSIS SECONDARY TO HYPERPLASTIC INTIMAL TISSUE

Carlos Grijó; Catarina Faustino; Ana Toste; Tiago Millner; Mariana Pintalhão; Guilherme Gama; Paulo Castro Chaves; Luísa Fonseca
ULS São João

Background: Severe atherosclerosis increases the risk of stroke, and patients with symptomatic stenosis may require stenting. However,

stenting major arteries, such as the internal carotid artery (ICA) and middle cerebral artery (MCA), carries both immediate and long-term risks. This case describes a patient who developed a new vascular event due to intimal hyperplasia following recent stent placement in both ICAs and the M1 segment of the right MCA.
Clinical case: A 76-year-old man with recent ICA and right MCA M1 stenting for severe symptomatic atherosclerosis presented to the emergency room (ER) with transient neurological deficits, including dysarthria, facial asymmetry, and left hemiparesis. Two weeks earlier, a transcranial doppler ultrasound (TU) showed signs of stenosis of the right M1 stent (speed 336/158 cm/s, systolic index with previous segment of 5.1) and a vasoCT was performed which confirmed stenosis due to intimal hyperplasia, so the patient added dexamethasone to the ongoing dual antiplatelet and statin therapies. In the ER, a brain CT scan showed no distal blood flow in the right MCA, leading to his admission to the stroke unit. Transcranial ultrasound revealed severe right MCA M1 stenosis (363/215 cm/s, systolic index with previous segment of 9.0) with reduced distal flow, abolished hypercapnic vasoreactivity, and no microembolic signals on 20-minute Doppler monitoring. The patient remained stable throughout six days of observation while continuing corticosteroids, with no recurrence of symptoms.
Conclusion: Intimal hyperplasia is a common response to stent implantation, but symptomatic cases are rare and should be promptly identified to avoid unnecessary endovascular procedures. This case highlights the importance of recognizing and differentiating intimal hyperplasia from other stent-related complications, such as thrombosis.

PO 32

BASILAR ARTERY SYNDROME FROM DOMINANT VERTEBRAL ARTERY OCCLUSION: A CASE FOR THROMBECTOMY & STENTING

Rui Pedro Lopes; Diogo Duarte; João Pedro Filipe; Ricardo Varela
Centro Hospitalar do Porto, EPE/Hospital Geral de Santo António

Background: Basilar artery occlusion (BAO) is a life-threatening condition often resulting from vertebrobasilar thromboembolism.
Case report: A 65-year-old male with prior traumatic brain injury sequelae (mild right hemiparesis, dysarthria), vascular risk factors, and COPD presented with a suspected stroke. Over the previous 24 hours, he developed worsening dysarthria, aggravated right hemiparesis, mild left hemiparesis, diplopia, severe vertical nystagmus, nausea, vomiting, and slight lethargy. Neurological examination revealed an NIHSS of 10.
CT angiography revealed acute occlusion of the dominant right vertebral artery (V4 segment). Given the clinical presentation and vessel dominance, the patient was transferred for urgent mechanical thrombectomy. On arrival, neurological deficits remained unchanged. Reperfusion (mTICI 3) was achieved using aspiration and stent retriever techniques, but significant residual stenosis at V4 worsened after 10 minutes. To prevent reocclusion and further clinical deterioration, a stent was deployed, achieving a final residual stenosis of 10%. Post-procedural Doppler ultrasound confirmed the absence of hemodynamically significant stenosis in the right vertebral artery.
The patient developed aspiration pneumonia, which was successfully treated with antibiotics. He gradually improved and currently has an mRS of 2. No procedural complications occurred.
Conclusion: This case highlights the need to recognize dominant vertebral artery occlusion

as a cause of basilar artery syndrome and supports thrombectomy's role in achieving good outcomes. Although V4 stenting is not standard practice, it was deemed necessary in this case given the dominant nature of the vessel and the risk of clinical deterioration in the event of reocclusion.

PO 33

A CASE OF ACUTE ISCHEMIC STROKE REQUIRING EMERGENT BILATERAL INTERNAL CAROTID ARTERY STENTING

António Frederico Tavares; Celina Poeta do Couto; Diana Aguiar de Sousa; Jaime Pamplona; Ana Paiva Nunes; Isabel Fragata
ULS São José, Lisboa

We present a case of a 60-year-old man with hypertension, diabetes, coronary artery disease, and prior stroke without sequelae, who presented to the emergency room after syncope. Neurological exam was normal and laboratory tests were remarkable for polycythemia (Hb 20.0 g/dL) requiring urgent therapeutic phlebotomy.

5 hours later, the patient was found unresponsive with right gaze deviation and tonic posturing, with unknown time of onset. A CT scan with CT angiogram was performed which showed no early ischemic signs (ASPECTS 10) and bilateral internal carotid occlusion at the cervical segments, extending to the left cavernous ICA. The patient was transferred to a thrombectomy-capable stroke center.

Angiography confirmed bilateral ICA occlusion with delayed filling via the posterior circulation and left ophthalmic artery, as well as exuberant intracranial atherosclerosis. Aspiration thrombectomy revealed critical stenosis of the right cervical/petrous ICA (dissection) and left cavernous ICA (atherosclerosis).

Antiplatelet loading doses were administered and a stent deployed across the dissection in the right ICA. Following repeated thrombectomy of the left ICA due to reocclusion, an intracranial stent was placed in the left cavernous segment. There was complete (TICI 3) bilateral reperfusion, with residual 20% stenosis of the left ICA.

CT scan at 24 hours showed extensive acute ischemic lesions involving the territory of the anterior circulation bilaterally, with midline shift. Unfortunately, death by neurological criteria was declared 2 days after the onset of symptoms.

This case highlights the challenges of managing ischemic stroke due to acute bilateral carotid occlusion and the particularly time-sensitive nature of endovascular treatment in a patient with poor collateral flow via the posterior circulation.

PO 34

MANAGEMENT OF BILATERAL ICA DISSECTIONS WITH PSEUDOANEURYSMS IN POLYTRAUMA – A CASE REPORT

Celina Poeta do Couto; António Tavares; Mariana Baptista; Rui Carvalho; Isabel Fragata
ULS São José, Lisboa

Background: Blunt cerebrovascular injury is a rare but severe consequence of polytrauma, potentially leading to ischemic strokes. Dissections with pseudoaneurysms pose a therapeutic challenge, requiring a balance between endovascular intervention and hemorrhagic risk.

Clinical case: A 33-year-old male suffered polytrauma, including bilateral internal carotid artery (ICA) transmural dissections with pseudoaneurysms, multiple fractures and hemorrhagic shock. He developed bilateral cerebral ischemic lesions with global hypoperfusion, initially more severe on the right. Due to the high bleeding risk, dual antiplatelet therapy was initially contraindicated. Seven days later, because of progressive left cerebral hypoperfusion, balloon angioplasty was performed, improving left ICA flow. However,

follow-up imaging showed progression to pre-occlusive left ICA stenosis and pseudoaneurysm enlargement. A second angioplasty was performed: right ICA angioplasty improved luminal caliber, while left ICA angioplasty failed, requiring deployment of a closed cell LEO stent. The possibility of simultaneous treatment of the left pseudoaneurysm with additional transcell coiling through the LEO stent or a flow diverter stent was considered but ultimately not pursued, as the treatment strategy was focused on minimizing hemorrhagic risk, reducing thromboembolic complications and stabilizing blood flow. The patient remained clinically stable, with progressive neurological recovery.

Conclusion: This case highlights the complexity of managing bilateral ICA transmural dissections with pseudoaneurysms in polytrauma patients. A less invasive approach, with balloon angioplasty to stabilize hypoperfusion and delayed stenting (only if necessary), may reduce hemorrhagic risk, while stent choice and embolization techniques should be tailored to pseudoaneurysm and parent vessel morphology.

PO 35

EXTRACRANIAL VASCULAR ANOMALIES IN THE PEDIATRIC POPULATION: A PICTORIAL REVIEW

Carolina Cunha; Cristiano Esteves; Manuel A. Correia; Graça Sá; Filipa Proença
Centro Hospitalar de Lisboa Norte, EPE / Hospital de Santa Maria

Background: Extracranial vascular anomalies (EVAs) are a heterogeneous group of congenital and acquired lesions with abnormal vascular development, including both tumors and malformations. EVAs in children are diagnostically challenging due to their diverse clinical presentations and imaging characteristics. The International Society for the Study of Vascular Anomalies (ISSVA) classifies these lesions into vascular tumors, the most common one being infantile hemangiomas (IH), and vascular malformations, which are further divided into low-flow (venous, capillary, lymphatic, or mixed) and high-flow (arteriovenous malformations, AVMs). Given the variability in size, location, and tissue involvement, imaging plays an essential role in diagnosis and treatment planning. Objectives: This pictorial review aims to illustrate the imaging spectrum of EVAs in pediatric patients, emphasizing key findings to aid differentiation. We also demonstrate the role of various imaging modalities, including magnetic resonance imaging (MRI), computed tomography (CT), angiography, and ultrasonography, in evaluating anatomical extent, vascular flow and their impact on treatment strategies.

Methods: We present representative pediatric cases from our tertiary center, demonstrating the spectrum of EVAs, including clinical presentation, multimodal imaging findings, lesion evolution over time, and therapeutic approaches in selected cases. Results: Imaging aids diagnosis as some anomalies can share similar clinical features. Infantile hemangiomas enhance strongly in the proliferative phase and involve over time. Venous malformations are T2-hyperintense with slow enhancement and phleboliths. Lymphatic malformations show cystic features and fluid-fluid levels. Capillary malformations have subtle enhancement, often linked to port-wine stains. AVMs present as flow voids with enlarged feeding arteries and early venous drainage. Imaging helps differentiate high-flow from low-flow lesions, assessing vascular flow and guiding appropriate treatment strategies.

PO 36

GIANT ANEURYSM WITH A PSEUDOMOYAMOYA PATTERN: A CASE REPORT IN A PEDIATRIC PATIENT

João Francisco Vale; Vítor Encarnação; João B. Madureira; Gonçalo Basílio; Luísa Biscoito
Centro Hospitalar de Lisboa Norte, EPE/Hospital Pulido Valente

Background: Pediatric aneurysms are extremely rare, with an incidence of 1 to 3 per million. Giant aneurysms occur more frequently in children, compared to adults, with an equal distribution between the anterior and posterior circulation and a typical presentation with signs of mass effect. Similarly to adult populations, pediatric aneurysms have associations and links with a variety of systemic and intracranial disorders.
Objectives: To describe a rare case of a giant posterior cerebral artery (PCA) aneurysm with a pseudomoyamoya pattern in the middle cerebral artery (MCA) in a teenager, emphasizing diagnostic challenges, treatment strategies and outcomes.
Clinical case: A 15-year-old female presented with a 3-week history of worsening pulsatile headache.
Head-CT and CT-Angio revealed a well-defined, hyperdense, extra-axial lesion in the left parieto-occipital area, suggestive of an aneurysm. Cerebral angiography confirmed a giant left PCA aneurysm (26×19 mm) in the P4 segment with slow distal arterial filling, along with a pseudomoyamoya pattern in the left MCA with hypoplastic M2 branches and recruitment of PCA-derived collaterals proximal to the aneurysm origin.
The patient underwent endovascular embolization with a balloon-occlusion test in the PCA territory, demonstrating adequate collateral compensation through leptomeningeal anastomotic MCA branches. The endovascular procedure with the placement of coils achieved complete aneurysm exclusion while preserving occipital and temporal perfusion through collateral pathways.
The patient had a recovery without complications.
Conclusion: Giant aneurysms in children are potentially life-threatening, requiring early diagnosis and management. This case report highlights the importance of a detailed angiographic investigation with balloon-occlusion testing to achieve a complete occlusion while reducing the risk of ischemic complication.

PO 37

RARE ORIGIN OF THE RIGHT VERTEBRAL ARTERY FROM EXTERNAL CAROTID ARTERY

Carolina Mendes Cerqueira, Inês Prisco, Pedro Bem, Miguel Baptista, Ana Mafalda Reis
Serviço de Neurorradiologia, Hospital Pedro Hispano, Matosinhos, Portugal

Background: Anatomical variants of the vertebral arteries are rare, and in most cases, they are incidental findings in angiographic studies of the supra-aortic trunks.
Objectives: Report a case of an anatomical variant of the vertebral artery with clinical and embryological relevance.
Methods/Clinical case: A 77-year-old female patient was admitted to the emergency department due to an altered state of consciousness associated with a fall at home. In this context, a brain computed tomography (CT) scan and a computed tomography angiography (CTA) of the brain and supra-aortic trunks were performed.
Results/Conclusion(s): The angiographic study of the supra-aortic trunks revealed an anatomical variant of the vertebral artery: the V1 and V2 segments originated from the right subclavian artery, with a filiform morphology, becoming no longer visible from the level of

C3; the V3 and V4 segments originated from the ipsilateral external carotid artery, coursing around the lateral mass of C1 and entering the skull base through the foramen magnum. Although vertebral artery origin variants are usually incidental findings, their imaging assessment and knowledge of embryology are important before any surgical or endovascular procedure to prevent diagnostic errors or iatrogenic injuries.

PO 38

CASE REPORT: APPROACH TO MULTIPLE INTRACRANIAL ANEURYSMS

Daniela Alves Berhanu; António Tavares;
Celina Poeta do Couto; Mariana Baptista; Rui Carvalho;
Carolina Pinheiro; Tiago Lorga; Jaime Pamplona;
Ana Paiva Nunes; Isabel Fragata
ULS São José, Lisboa

Background: Multiple complex intracranial aneurysms can pose a difficult therapeutic challenge, especially when complicated by thrombosis which can cause acute ischemia and mass effect on adjacent structures. We present a case of a patient who underwent endovascular treatment of multiple aneurysms after admission for acute ischemic stroke.
Clinical case: A 67-year-old woman presented with dysarthria, diplopia and left hemiataxia. Imaging showed an acute infarct of the left cerebellar hemisphere and a large mixed fusiform and saccular aneurysm of the middle and distal third of the basilar artery, involving the left posterior cerebral artery and left superior cerebellar artery (SCA). The partially thrombosed aneurysm caused compression of the left cerebral crus and occlusion of the SCA. Angiography was performed, which identified eight other saccular and dysplastic aneurysms in the anterior and posterior circulation. A LEO stent was initially deployed across the basilar artery aneurysm, extending into the left P1-P2 transition with a later decrease in size of the fusiform aneurysm. A flow diverting stent was later placed in the right internal carotid artery, between the terminus and ophthalmic segments, thereby excluding three saccular aneurysms. At the time of discharge there was a clinical improvement.
The patient was readmitted after three days due to new ischemic lesions and later presented with subarachnoid haemorrhage in the basal cisterns and posterior fossa causing brainstem compression which led to brain death.
Conclusions: Dysplastic aneurysms remain a difficult therapeutic challenge, particularly when affecting the vertebrobasilar territory. In a patient with multiple aneurysms, a multiple stage approach is appropriate despite the implicated haemorrhagic risk.

EXECUTIVE COMMITTEE

President: Patricia Ferreira, MD
Carolina Pinheiro, MD
Diana Aguiar Sousa, PhD
Diana Melancia, MD
Danila Kuroedov, MD
Mariana Baptista, MD
Mário Alcatrão, MD
Marisa Mariano, MD
Rui Carvalho, MD

SCIENTIFIC COMMITTEE

President: João Reis, MD
Ana Paiva Nunes, MD
Isabel Fragata, PhD

SCIENTIFIC ENDORSEMENTS

PLATINIUM SPONSORS

SILVER SPONSORS

SPONSORS

ORGANIZATION & SECRETARIAT

admédic
CONGRESS, MEETING & EVENT MANAGEMENT

Calçada de Arroios, 16C, Sala 3 1000-027 Lisbon, Portugal
Phone: +351 21 842 97 10 (Call to national fixed network)
Email: sofia.gomes@admedic.pt
www.admedic.pt

@lisbonstrokesummit LisbonStrokeSummit