

lumbar spine(45.4%) were the most frequently treated levels. Lung(27.1%), breast(24.3%), genitourinary(11%), gastrointestinal(9.3%), and prostate cancers(5.2%) were the most prevalent primary tumors. Geographically, the majority of studies originated from Europe(39.7%), followed by China(29.4%) and the USA(26.5%).

Conclusion This analysis demonstrates the widespread adoption of ablation techniques for treating spinal metastases across various countries and cancer types. The global reach of these techniques highlights the need for a multidisciplinary approach involving radiation oncologists, surgeons, and neurointerventional radiologists for optimal management of these complex patients.

Disclosure of Interest no.

3.1. Innovation

P170 SINGLE ANTI-PLATELET THERAPY AFTER IMPLANTATION OF THE NOVEL DERIVO FLOW DIVERTING STENT WITH HEAL TECHNOLOGY: THE SAFE STUDY

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Introduction Flow diversion has well established for the treatment of cerebral aneurysms, however, the need for dual antiplatelet therapy is a significantly limiting factor.

Reduction of the essential antiplatelet regimen may enable flow diversion for currently ineligible patient groups e.g. in the acute setting and/or under multimodication and might further reduce the risk of treatment-related adverse events.

Aim of Study The aim of the study was to observe the angiographic and clinical outcome of the endovascular treatment with the novel Derivo with Heal technology under prasugrel monotherapy.

Methods Between December 2022 and December 2023 patients were prospectively included. Demographic data, procedural details, antiplatelet regimen and adverse events were recorded.

Results 33 lesions were successfully treated with the D2heal under prasugrel monotherapy.

Directly treatment-related adverse events were observed in five patients. Four were resulting from insufficiency of the femoral closure device and were resolved by stenting. In another, treatment of a giant inflammatory ICA aneurysm causing progredient vision loss was performed uneventfully. The patient presented hemiparesis and aphasia due to SAH postinterventionally. The neurologic deficits were completely regredient until discharge.

Immediately after the implantation, a high percentage (44%) of the lesions remained unaltered in flow. At the first angiographic follow up proposed 3 months after the intervention 53% of the lesions were completely occluded; 43% showed diminished flow. Only 4% (n=1) showed no changes in perfusion.

Conclusion The D2heal under prasugrel monotherapy is safe and efficient. No increase in risk of ischaemia was observed. However, multicentric studies are warranted.

3.5. Miscellaneous

P171 THE SAFETY OF CEREBRAL ANGIOGRAPHY IN THE HANDS OF EXPERIENCED PRACTITIONERS: A RETROSPECTIVE EVALUATION OF INCIDENCE AND CLINICAL SIGNIFICANCE OF ISCHEMIC LESIONS

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Introduction The safety of diagnostic cerebral angiography, a commonly used procedure, has been a topic of ongoing discussion in the medical community. While the procedure is invaluable for diagnosing a variety of cerebral conditions, concerns about its safety persist, particularly regarding the risk of ischemia.

Aim of Study This retrospective study aimed to evaluate the safety of diagnostic cerebral angiography by an experienced physician.

Methods A retrospective study was conducted on 300 consecutive patients who underwent diagnostic cerebral angiography. All procedures were performed by the same experienced physician using the same technique. Diffusion-weighted magnetic resonance imaging (MRI) was conducted within 24 hours post-angiography.

Results Post-angiography, diffusion-weighted MRI identified 22 bright lesions (median 1.3 lesions per patient) in 17 patients, indicative of embolic events. Importantly, no new neurological deficits were observed following any angiographic procedure. The frequency of lesions in diagnostic angiography was significantly higher in male patients and those with a history of cervical and intracranial atherosclerosis. The frequency of lesions correlated also with fluoroscopy time.

Conclusion The incidence of silent embolism is significantly lower than that reported in the existing literature proving that the cerebral angiography is a safe diagnostic method in an optimal setting and experienced hands.

Disclosure of Interest no.

3.1. Innovation

P172 STENTING OF SYMPTOMATIC CEREBRAL SINUS STENOSIS WITH THE LASER CUT SELF-EXPANDING SUPER LARGE ACCLINO STENT – INITIAL EXPERIENCE

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Introduction Lateral sinus stenosis represent a cause for intracranial hypertension and pulsatile tinnitus. Extrinsic as well as intrinsic stenosis may be the target of endovascular treatment.

Aim of Study To present the initial experience of sinus stenosis treatment with the novel self-expanding large Acclino stent.

Methods Patient history, clinical findings and procedural data were reviewed. Diagnostic workup comprised neurological examination and in case of suspected intracranial hypertension

ophthalmological evaluation. All patients also had internal jugular vein compression test to confirm the alteration of the pulsatile tinnitus. Imaging comprised contrast enhanced MRI, MR-Angiography and Time of flight MRA. Lumbar puncture with opening pressure measurement was performed in suspected IIH. All patients were treated under dual antiplatelet therapy.

Results Four consecutive patients were diagnosed with symptomatic transverse sinus stenosis. In two patients, intrinsic stenosis by large Pacchioni granulations and in two patients an extrinsic stenosis were identified as the cause of the pulsatile tinnitus and the intracranial hypertension respectively. Arterial and venous access were transfemoral. Pressure gradients were measured by using a 0.027 Headway 27 microcatheter. The same catheter was used for the deployment of Acclino 8.0x60.0mm stents. In all patients the stent led to a complete remodelling of the sinus stenosis with remission of the tinnitus and major relief in headache in the IIH patient. On angiographical control at three months, there was no in-stent stenosis and no recurrence of the stenosis.

Conclusion The large 8x60mm Acclino stent provides a very low profile system for the treatment of sinus stenosis.

Disclosure of Interest no.

3.2. Clinical Management

P173 INDICATION, ANGIOGRAPHIC FINDINGS AND COMPLICATION FOLLOWING BALLOON TEST OCCLUSION

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Introduction Balloon test occlusion (BTO) is performed to evaluate ischaemic tolerance in patient who require vessel sacrifice. The indication for BTO include complex intracranial aneurysms, fistulae, and tumours of the skull base and neck. In recent years, the advances in skull base surgery and oncological treatment necessitated BTO.

Aim of Study The purpose of this study was to evaluate the reliability of venous delay with clinical testing method and complication rates of angiography-based balloon test occlusion.

Methods We performed a single-centre retrospective analysis of twenty-eight patients who underwent BTO from 2015 to February 2024. Venous delay and neurological status were analysed.

Results The indication for procedure includes aneurysm (n=14), tumor (n=11), dissection (n=2) and caroticocavernous fistula (n=1). Six patients (21%) did not meet the BTO passing criteria while the remaining twenty-two patients (79%) passed the BTO. Transient symptoms arising from the BTO procedure included cephalgia (n=4), vertigo (n=2), hyposthenia (n=1), and bradyphrenia (n=1). The symptoms resolved

immediately after balloon deflation. One patient had pseudoaneurysm of the left groin which was treated with 0.7 ml thrombin. One patient who clinically passed the BTO developed a transient thromboembolic stroke which was not related to BTO procedure but related to previous vessel occlusion and symptoms resolved. There was no post-surgical/procedural stroke following vessel sacrifice in patients who passed BTO.

Conclusion Our single centre analysis shows that BTO is safe procedure with low rate of complication. The venous delay with clinical assessment method reliably predicts ischaemic tolerance.

Disclosure of Interest no.

3.5. Miscellaneous

P174 AN EXPLOSION OF CLINICAL STUDIES ON ACUTE ISCHEMIC STROKE: A SYSTEMATIC REVIEW

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Introduction Since the five major randomized controlled trials (RCTs) that revolutionized acute ischemic stroke (AIS) treatment through mechanical thrombectomy in 2015, there is an increase in clinical studies evaluating a variety of treatments and techniques.

Aim of Study This systematic review evaluates AIS clinical studies to understand global trends.

Methods Registered clinical studies on AIS were systematically reviewed on Clinicaltrials.gov until Dec 2023. Studies were categorized as diagnostic, treatment, management, or workflow. For each study, extracted variables included device or drug class and name, study status, randomization, start and end years. Studies were grouped into 4-year periods based on start date: Y1 (2000-2003), Y2 (2004-2007), Y3 (2008-2011), Y4 (2012-2015), Y5 (2016-2019), and Y6 (2020-2023). A Pearson's chi-squared test for association was performed comparing categories to study status, randomization, and periods.

Results Out of 1374 records screened, 1105 were included, categorized as management (n=540), treatment (n=309), diagnosis (n=214), and workflow (n=41). Initiated studies have nearly doubled every period from Y1 (n=31) to Y6 (n=455). Primary interventions were devices (n=215) or drugs (n=514) with cerebro-protective (n=225) and thrombolytics (n=106) being the most common. Chi-squared tests revealed management studies most likely to be randomized while diagnostic studies the least (p<0.001); treatment studies were stopped (withdrawn, terminated, or suspended) more than expected while all others were the opposite (p<0.001); treatment studies were observed more than expected in final period (Y6, 2020 to 2023) while diagnostic studies observed less than expected (p=0.01).

Conclusion Registered clinical studies on AIS have been increasing exponentially, particularly those investigating cerebro-protective drugs and reperfusion devices.

Disclosure of Interest no.