

Conclusion The results of this initial study suggest that neural networks have the potential to be used in clinical practice for the detection of intracranial aneurysms.

3.2. Clinical Management

P164 RETROSPECTIVE APPLICATION OF RISK SCORES TO UNRUPTURED ANTERIOR COMMUNICATING ARTERY ANEURYSMS

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Introduction Treatment decisions for unruptured intracranial aneurysms (UIAs) pose a challenge for neurosurgeons, prompting the development of clinical scales assessing hemorrhage risk to provide management guidance.

Aim of Study This study compares recommendations from the PHASES and UIA treatment scores (UIATS) applied to anterior communicating artery (ACoM) UIAs against real-world management.

Methods While UIATS recommends management, for PHASES, an aneurysm with score of 10 or more was considered 'high-risk'. Analysis involved assessing the concordance in each group alongside comparison to real-world management.

Results Among 129 patients, 46.5% were observed and 53.5% were treated. PHASES scores were significantly higher in the treatment group ($p = 0.00002$), and UIATS recommendations correlated with real-world decisions ($p < 0.001$). We observed no difference in the frequencies of UIATS recommendations between high- and low-risk groups. When comparing the UIATS and PHASES, 33% of high-risk aneurysms received a UIATS conservative management recommendation. In 39% of high-risk aneurysms, the UIATS recommendation was not definitive. Conversely, 27% of low-risk aneurysms obtained a UIATS UIA repair recommendation. Overall, concordance between PHASES and UIATS was 32%.

Conclusion Significant discordance in therapeutic suggestions underscores the predominant influence of center experience and individual assessments. Future studies should refine and validate decision-making strategies, potentially exploring alternative applications or developing tailored scales.

Disclosure of Interest no.

P165 PSYCHOLOGICAL OUTCOME AFTER NEUROENDOVASCULAR ELECTIVE TREATMENT: PRELIMINARY RESULTS

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Introduction Patients eligible for elective endovascular treatment of cerebrovascular diseases (CBVD) can be affected on mental health status and their quality of life. However, this

issue is still rarely taken into consideration in literature and practice (1-3).

Aim of Study To assess psychological status, coping, and quality of life in patients with CBVD undergoing endovascular procedures.

Methods We prospectively assessed the psycho-pathological status of a continuous sample of 25 patients that had to undergo endovascular treatment at baseline and discharge, by different instruments: State and Trait Anxiety Inventory (STAI), Beck Depression Inventory (BDI-II), Brief Coping Orientation to Problems Experienced Inventory (Brief-Cope), and quality of life (EQ-5D;WHODAS). We recorded neuroradiological findings (CT-MR-DSA), comorbidities, psychiatric history, pharmacological therapy, procedural and periprocedural technical and clinical complications, duration of the hospitalization and disability level (Modified Ranking Scale). We performed descriptive analysis and Wilcoxon matched-pairs signed-rank test to compare pre and post procedure outcome.

Results The patients enrolled were 25 (13 females; 12 males); their mean age was 60 ± 12.5 (range 35–81). There was a significant improvement in depression and state anxiety symptoms: at discharge, the depression scores significantly differed from those at baseline ($p = 0.01$), and state anxiety scores also significantly improved from baseline ($p = <0.001$). Whereas coping and quality of life did not have any statistically significant differences over time.

Conclusion Our results offer important support for the clinical and psychosocial management of these patients (4). In the future, follow-up assessment of patients will be collected and analyzed at 3-6-12-month post-procedure.

Disclosure of Interest no.

P166 MAGNETIC RESONANCE IMAGING CHANGES IN SPINAL ARTERIO-VEIN FISTULAE TREATED BY ENDOVASCULAR MEANS: ARE THEY REALLY RELIABLE TO PREDICT COMPLETE CURE OF THE FISTULA?

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Introduction Regression or disappearance of MRI abnormalities is usually observed after treatment of spinal arterio-venous fistulae (sDAVF).

Aim of Study We aimed to assess the correlation between MRI changes with sDAVF exclusion and clinical outcome.

Methods Imaging data of patients treated with endovascular embolization for sDAVF between 2007 and 2023 were retrospectively analyzed. Spinal cord edema and perimedullary flow voids at baseline and 3 month follow-up were compared between patients with and without sDAVF stable exclusion and clinical improvement on the Aminoff and Logue scale.

Results Twenty-five patients were included in this study. At 3-month follow-up, a regression of spinal cord edema was significantly associated with sDAVF stable exclusion ($p=0.038$). The combination of edema and flow voids regression was significantly associated with higher odds of cured sDAVF ($p<0.001$) and clinical improvement ($p<0.01$). The latter association presented high sensitivity (100% (CI95%; 78.20% - 100%)) and negative predictive values value (100% (CI95%; 47.82% - 100%)) for the detection of cured sDAVF in comparison to DSA.

Conclusion Patients with both spinal cord edema and flow voids regression at 3 months were more likely to present with a stable exclusion of sDAVF and clinical improvement after endovascular embolization. Patients without MRI improvement should be referred to DSA to seek recurrence of sDAVF.

3.4. ETMINT

P167 ANTIPLATELET AGENTS AND ANTAGGREGATION THERAPY IN THE ANGIOSUITE

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Introduction To provide an overview of *platelet physiology* and *antiaggregation/anticoagulation drugs* commonly administered in the angiosuite.

Aim of Study Antiplatelet and anticoagulation drugs play a crucial role in neurointerventions, where the management of blood clotting is essential to prevent thromboembolic events. These medications are administered to reduce the risk of stroke and clot formation during and after neurointerventional procedures.

Methods Overview of commonly administered antiplatelet and anticoagulation drugs during neurointerventions.

Results 1. Antiplatelet drugs:

a. *Aspirin (Acetylsalicylic Acid)*: Aspirin inhibits platelet aggregation by irreversibly blocking the enzyme cyclooxygenase (COX).

2. **Anticoagulation drugs:**

a. *Heparin (UFH)*: Unfractionated heparin works by enhancing the activity of antithrombin III, inhibiting clot formation.

b. *Aggrastat (Tirofiban)*: Glycoprotein IIb/IIIa inhibitor. It inhibits the binding of fibrinogen and von Willebrand factor to the glycoprotein IIb/IIIa receptor, thereby preventing the final step of platelet aggregation and the formation of blood clots.

c. *Abciximab (ReoPro)*: Glycoprotein IIb/IIIa inhibitor, inhibition up to 15 days.

Conclusion Antiplatelet therapy plays a crucial role in the angiosuite, it is thus indispensable for the angiosuite personnel to be aware of the use and mechanism of these medication.

Disclosure of Interest no.

P168 THE USE OF A MOBILE RADIATION PROTECTION MODULE EVERY DAY IN AN INTERVENTIONAL NEURORADIOLOGY ROOM: A STUDY AT TOULOUSE UNIVERSITY HOSPITAL

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Introduction After successfully reducing patient exposure and associated deterministic risks in interventional neuroradiology, the new challenge lies in mitigating stochastic radiation-induced risks for medical and paramedical staff while enhancing workplace quality of life.

Aim of Study Our study, conducted at the University Hospital of Toulouse, aims to primarily reduce this exposure while

safeguarding against musculoskeletal disorders through the implementation of a lead-lined cabin prototype as collective protection equipment.

Methods The cabin study unfolds in two stages: an initial month-long measurement campaign integrates the cabin into daily service, followed by a second campaign using standard protections without the cabin. Four positions are examined: primary interventional neuroradiologist (INR), assistant INR, surgical assistant, and circulating radiology technologist.

For exposure measurements in both campaigns:

- Each of the 4 operators wears 6 TLD-100 dosimeters and 2 operational dosimeters to assess their exposure at various points.

- 5 strategically placed TLD-100 dosimeters evaluate the cabin's attenuation capability.

A satisfaction survey is conducted among workers involved in the study to gather feedback on cabin usage compared to their usual protective measures.

Results The study results are pending due to the study dates (April 9 to June 9) and will be presented at the ETMINT 2024 congress.

Conclusion The study hopes to optimize the radiation protection of workers in interventional neuroradiology at Toulouse University Hospital while improving their quality of life at work by reducing or even eliminating the wearing of leaded aprons daily.

Disclosure of Interest no.

3.5. Miscellaneous

P169 A SYSTEMATIC REVIEW OF VERTEBRAL METASTASES EPIDEMIOLOGY BASED ON RADIOFREQUENCY, CRYOABLATION OR MICROWAVE ABLATION TECHNIQUE

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Introduction Spinal metastases cause significant pain and neurological complications in up to a third of cancer patients. While systemic therapies improve survival, pain management, neurological function preservation, and spinal stability remain crucial palliative goals.

Aim of Study This study aimed to conduct a comprehensive epidemiological analysis on ablation techniques for vertebral metastases to facilitate collaboration between radiation oncologists, surgeons, and neurointerventionalists.

Methods We conducted a systematic literature search based on PRISMA guidelines on ablation techniques for vertebral metastases. Included studies involved at least 3 adult patients with spinal metastases treated with radiofrequency ablation (RFA), microwave ablation (MWA), or cryoablation (alone or combined). Only English publications were considered.

Results From 234 identified articles, 68 met the inclusion criteria. Published between 2006 and 2023, these studies reported ablative procedures treating 3507 lesions in over 2413 patients (median age: 61.5 years, 51.4% female). RFA was the most common technique (73.5%), followed by MWA (22.1%) and cryoablation (4.4%). The thoracic (47.6%) and