

**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

<sup>1</sup>Katarzyna Wójtowicz, <sup>2</sup>Łukasz Przepiórka, <sup>3</sup>Sławomir Kujawski, <sup>2</sup>Edyta Maj, <sup>2</sup>Andrzej Marchel, <sup>2</sup>Przemysław Kunert. <sup>1</sup>Medical University of Warsaw, Poland; <sup>2</sup>Medical University of Warsaw; <sup>3</sup>Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń

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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

<sup>1</sup>Chiara Riccietti, <sup>2</sup>Maria Teresa Contaldo, <sup>1</sup>Valentina Caldiera, <sup>3</sup>Giuseppe Ganci, <sup>3</sup>Andrea Giordano, <sup>3</sup>Elisa Ciceri. <sup>1</sup>Fondazione IRCCS Istituto Neurologico Carlo Besta; <sup>2</sup>University of Milan, Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan, Italy; <sup>3</sup>Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan, Italy

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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  $60 \pm 12.5$  (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?

<sup>1</sup>Julien Allard, <sup>2</sup>Pierre-Marie Chiaroni, <sup>2</sup>Mahmoud Elhorany, <sup>2</sup>Mehdi Bensemain, <sup>2</sup>Sam Ghazanfari, <sup>2</sup>Eimad Shotar, <sup>2</sup>Nader Sourour, <sup>2</sup>Frédéric Clarençon. <sup>1</sup>Pitié Salpêtrière University Hospital, Paris, France; <sup>2</sup>Pitié Salpêtrière University Hospital

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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.