



Abstract P162 Figure 1

advanced video streaming capabilities and its role in improving the educational experience for medical professionals.

Methods Curecast leverages a state-of-the-art, 5-channel, high-resolution video capture system, consisting of two A planes, two B planes, and one high-resolution camera. This unique setup allows for the streaming of anonymized live data directly to proctors or through webinars, thereby facilitating in-depth learning and rapid decision-making. Furthermore, the platform stores synchronized ultra-HD videos of each channel, enabling detailed video editing for educational purposes. Its compatibility with any generic streaming platform and its low-cost implementation make it a versatile and accessible solution for institutions worldwide.

Results Implementing Curecast in 41 neurointerventional procedures has substantially accelerated expert assistance and increased interventionalists' confidence, particularly benefiting fellows on call. Feedback from teaching during live cases has highlighted the platform's exceptional capability in enhancing learning outcomes and procedural efficiency.

Conclusion Technical implementation of this video conferencing and video capturing platform for neurointerventions introduces a capable tool for telemedicine, characterized by heightened educational value, improved procedural outcomes, and cost-effective deployment. Its broad accessibility and advanced video capabilities establish Curecast platform as a significant advancement in medical education and patient care.

Disclosure of Interest no.

P163 DETECTION OF INTRACRANIAL ANEURYSMS ON 3D ROTATIONAL DIGITAL SUBTRACTION ANGIOGRAPHY USING NEURAL NETWORKS

¹Kamil Zeleňák, ²Peter Tarábek, ³Ivan Cimrák. ¹Jessenius Faculty of Medicine, Comenius University, Martin, Slovakia; ²Faculty of Management Science and Informatics, University of Zilina, Zilina, Slovakia; ³Faculty of Management Science and Informatics, Zilina, Slovakia

10.1136/jnis-2024-ESMINT.198

Introduction Automatic detection of intracranial aneurysms is challenging and currently available commercial software is not able to detect an intracranial aneurysm in all cases. An undetected aneurysm may rebleed and cause the death of the patient. Artificial intelligence can potentially be helpful in reducing the rate of failure.

Aim of Study The purpose of the study was to configure a neural network able to detect intracranial aneurysm on 3D rotational angiography and to test its precision and recall.

Methods The initial data set was created by anonymizing 11 patients with positive aneurysm findings on standard intracranial 3D rotational angiography and 2 cases with negative aneurysm findings. The data set contains a total of 1557 images.

Results The average precision across the models was 93.86%, while the average recall was 29.75%.

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

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

10.1136/jnis-2024-ESMINT.199

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

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

10.1136/jnis-2024-ESMINT.200

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?

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

10.1136/jnis-2024-ESMINT.201

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.