

impedance measurements before any thrombectomy pass in subjects presenting with AIS due to an occlusion with origin in the M1 and eligible for EVT. After EVT, the composition of retrieved thrombi was analyzed using Martius-Scarlett Blue and CD42b stains. Primary and secondary endpoints concern the safety of CSGS and the correlation of impedance measurements with expert and histological analysis. The study is controlled by an independent Data Safety Monitoring Board and supported by centralized histology and imaging core-labs.

**Results** Enrolment has been completed at 40 patients. There were no serious adverse events related to CSGS among the evaluated patients. A preliminary analysis demonstrates the feasibility to interpret the acquired impedance signals to determine in-situ thrombus features using predictive models.

**Conclusion** We will provide results from the final analysis at ESMINT 2024.

**Disclosure of Interest** yes Julie Lafaurie-Janvore, Joachim Rambeau, Franz Bozsak are employees of Sensome.

**P160 INNOVATIVE REDUCTION IN RADIATION DOSE FOR DIAGNOSTIC CEREBRAL ANGIOGRAPHY: THE EFFICACY OF OPTIQ WITH IQ36**

<sup>1</sup>Bum-Soo Kim, <sup>2</sup>Woochul Cho, <sup>2</sup>Jai Ho Choi, <sup>2</sup>Yong Sam Shin. <sup>1</sup>Seoul St.Mary's Hospital, Department of Radiology, Seoul, South Korea; <sup>2</sup>Seoul St.Mary's Hospital, Department of Neurosurgery, Seoul, South Korea

10.1136/jnis-2024-ESMINT.195

**Introduction** The OPTIQ, an advanced 2D imaging pipeline, automatically adjusts exposure parameters to maintain predefined image quality during cerebral angiography while aiming to reduce radiation dose.

**Aim of Study** This study evaluates the efficacy of OPTIQ in diminishing radiation exposure without compromising image quality in low-dose diagnostic cerebral angiography.

**Methods** We conducted a retrospective analysis of 2D diagnostic cerebral angiography data from 100 patients (68 female, 32 male; median age 58, range 31–80 years) assessed for intracranial aneurysms. Image quality was compared between 50 patients using conventional settings and 50 using OPTIQ with an Image Quality level of 36 (IQ36), evaluated by two blinded neurointerventionists on a four-point scale across four regions. Noninferiority in image quality and reductions in radiation dose were statistically analyzed using dose-area product (DAP) and air kerma (AK) measurements.

**Results** The OPTIQ group demonstrated noninferior image quality (Reader 1:  $3.50 \pm 0.38$ ; Reader 2:  $3.70 \pm 0.26$ ) compared to the conventional group (Reader 1:  $3.53 \pm 0.37$ ; Reader 2:  $3.78 \pm 0.19$ ). Interrater reliability was established with a Cronbach's alpha of 0.835. DAP and AK for 2D DSA in anteroposterior and lateral views were significantly lower in the OPTIQ group ( $1.94 \text{ Gy}\cdot\text{cm}^2$  and  $0.012 \text{ Gy}$ , respectively) compared to the conventional group ( $5.28 \text{ Gy}\cdot\text{cm}^2$  and  $0.031 \text{ Gy}$ , respectively), marking a dose reduction of 63.26% for DAP and 60.25% for AK.

**Conclusion** OPTIQ with IQ36 significantly reduces radiation exposure by approximately 60–63% during 2D diagnostic cerebral angiography without compromising image quality, enhancing procedural safety.

**Disclosure of Interest** no.

**P161 FIRST EVALUATION OF A NEW RADIATION PROTECTION EQUIPMENT DEDICATED TO INTERVENTIONAL NEURORADIOLOGY**

<sup>1</sup>Johanna Jouhans, <sup>1</sup>Luis Ammour, <sup>2</sup>Pierre-Marie Lagarde, <sup>1,3</sup>Hubert Desal. <sup>1</sup>Nantes Université, CHU Nantes, Nantes, France; <sup>2</sup>CHU Nantes, Nantes, France; <sup>3</sup>L'institut du thorax, UMR 1087, Nantes, France

10.1136/jnis-2024-ESMINT.196

**Introduction** Occupational exposure in interventional neuroradiology can be considered moderate compared to legal dose limits, however, the work environment should be optimized to reduce the exposure while maintaining good ergonomics and a low burden on the operator. Mobile radiation protection cabins have proven their efficiency for radiation protection in cardiology procedures while reducing the level of personal protective equipment needed. A new cabin, Novashell, by Lempax, has been developed specifically for interventional neuroradiology procedures.

**Aim of Study** This study aims to measure the radiation protection efficiency of Novashell.

**Methods** We conducted two occupational exposure studies, with our conventional collective radiation protection equipment, two ceiling-mounted lead acrylic shields (53 procedures), and with Novashell cabin (47 procedures). We measured the doses using thermoluminescent and operational dosimeters and pooled the results by roles. We also mapped the equivalent dose rate levels in the operative room using operational dosimeters on 13 points of interest, at 3 different heights.

**Results** All workers' exposure has been significantly reduced with Novashell. Notably the main operator thorax dose has decreased by 55%, their exposure over the lead apron with Novashell is inferior to their exposure under the lead apron in conventional setup ( $20.84 \mu\text{Sv}/\text{month}$  vs.  $24.51 \mu\text{Sv}/\text{month}$ ). The highest benefit in equivalent dose rate level at the main operator position have been measured at the eyes level (1.6m) with a 75% decrease.

**Conclusion** We have demonstrated the effectiveness of the new Novashell cabin, which improves protection for the interventional neuroradiology team and addresses concerns about musculoskeletal disorders induced by personal protective equipment.

**Disclosure of Interest** no.

**P162 VIDEO-CONFERENCING AND CAPTURE WITH CURECAST IN NEUROINTERVENTIONS**

Andre Kemmling. University of Marburg, Neuroradiology, Marburg, Germany

10.1136/jnis-2024-ESMINT.197

**Introduction** Telemedicine has become a staple in enhancing healthcare education and patient outcomes. Curecast stands out as a groundbreaking videoconferencing platform designed for neurointerventions in the angio cath lab. It transcends traditional teaching and collaboration methods by providing real-time, live case streaming, teaching sessions, webinars, and on-call proctoring.

**Aim of Study** This study evaluates the impact of Curecast on the efficiency of neurointerventions, particularly through its