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### THE INFLUENCE OF SOCIOECONOMIC STATUS ON THE INCIDENCE OF INTRACRANIAL ANEURYSM – A HAMBURG CITY HEALTH STUDY INVESTIGATION

<sup>1</sup>Paul Steffen, <sup>2</sup>Laurens Winkelmeier, <sup>2</sup>Christian Heitkamp, <sup>2</sup>Thomas Lindner, <sup>2</sup>Jens Fiehler, <sup>2</sup>Marie Teresa Nawka. <sup>1</sup>University Medical Center Hamburg-Eppendorf, Department for Diagnostic and Interventional Neuroradiology, Hamburg, Germany; <sup>2</sup>University Medical Center Hamburg-Eppendorf, Department for Diagnostic and Interventional Neuroradiology

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**Introduction** While several risk factors for unruptured intracranial aneurysm (UIA) are known, the impact of the socioeconomic status (SES) on UIA incidence remains uncertain.

**Aim of Study** This study aimed to investigate the association between SES and UIA while correcting for known confounding risk factors.

**Methods** Retrospective analysis of subjects enrolled in the Hamburg City Health study who underwent intracranial magnetic resonance imaging (MRI). MRI scans were screened for UIA using time-of-flight angiography. Extensive patient data on risk factors<sup>1</sup> such as age, sex, smoking status, and hypertension were collected. SES was measured using educational level (in years) and household income (in steps of 500 EUR/month). A backward logistic regression model was established, with SES as the independent variable.

**Results** Among the 2673 included patients, 215 had an UIA. The incidence of UIA was significantly associated with female sex (OR 2.15, CI 1.45-3.20,  $p < 0.001$ ) and hypertension (OR 1.57, CI 1.07-2.33,  $p = 0.022$ ). In univariate analysis, patients with and without an UIA did not differ in median (IQR) educational level of 13.0 years (9.0-17.0) vs. 13.0 years (8.8-17.2) or median (IQR) income of 3250EUR/month (1125-5375EUR) vs. 2750EUR/month (375-5125EUR). In logistic regression analysis, income (OR 0.999, CI 0.999-1.000,  $p = 0.806$ ) and educational level (OR 1.038, CI 0.945-1.136,  $p = 0.432$ ) were not significantly associated with the incidence of UIA.

**Conclusion** This analysis demonstrates that, when controlling for established risk factors, socioeconomic status, as measured by educational level and household income, does not appear to be an independent risk factor for the incidence of intracranial aneurysms.

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### FINAL RESULTS OF THE REVISAR STUDY (RECANALIZATION OF DISTAL CEREBRAL VESSELS IN ACUTE STROKE USING APERIO®)

<sup>1,2</sup>Hannes Nordmeyer, <sup>3</sup>Franziska Dorn. <sup>1</sup>Klinikum Solingen, Dept. of Neuroradiology, Solingen, Germany; <sup>2</sup>Medical University of Witten/Herdecke, Witten, Germany; <sup>3</sup>University of Bonn, Bonn, Germany

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**Introduction** REVISAR is a prospective multicenter study on mechanical thrombectomy in distal vessels using the APERIO® (Hybrid (17)) Stent retriever.

**Aim of Study** To evaluate the safety and efficacy of the APERIO® (Hybrid(17)) Thrombectomy device in distal artery occlusions in the anterior and posterior circulation.

**Methods** Data was collected prospectively from all patients who signed informed consent. Efficacy endpoints were successful recanalization (TICI 2b-3) within 3 passes, no rescue therapy, no sICH and a good outcome at 90 days (mRS $\leq$ 2).

Primary safety endpoints were device- and procedure-related (serious) adverse events (AEs/SAEs) and mortality. Imaging data were evaluated by the centers and a central core lab. Primary inclusion criterion was treatment with the APERIO, the APERIO® Hybrid or APERIO® Hybrid<sup>17</sup>. Major exclusion criteria were any contraindication according to IFU and pretreatment mRS of  $\geq$ 3.

**Results** 134 patients were enrolled between 2020 and 2023. Median age was 74, 51% of the patients were female, median NIHSS was 7. There were 83 M2 (62%), 19 M3 (14%), 13 P1/2 (10%), 7 A1-3 (5%) and 12 other occlusions (9%). Successful recanalization (mTICI 2b-3) was achieved in 95.5%. A favourable mRS at day 90 (0-2) was found in 91/119 patients available for FU (76%). ICH occurred in 23 patients (19 with and 4 with symptoms). 8 patients had a worse clinical outcome at discharge than prior to the infarction. 6 (4.5%) patients died.

**Conclusion** The final analysis shows a good safety profile and a high efficacy of APERIO® Stent retriever in distal occlusions.

**Disclosure of Interest** yes this work was sponsored by Acandis.

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### FIRST MULTICENTER EVALUATION OF INITIAL EXPERIENCE AND SHORT-TERM FOLLOW-UP OF CEREBRAL ANEURYSMS TREATED WITH THE TRENZA EMBOLIZATION DEVICE

<sup>1</sup>Marcel Wolf, <sup>1</sup>Ahmed Othman, <sup>2</sup>Luca Valvassori, <sup>3</sup>Riitta Rautio, <sup>4</sup>Höltje Jan, <sup>5</sup>Ivan Jovanovic, <sup>5</sup>David Ozretic, <sup>6</sup>Luca Allegretti, <sup>7</sup>Jan-Hendrik Buhk, <sup>8</sup>Marielle Sophie Ernst, <sup>1</sup>Marc Brockmann. <sup>1</sup>Department of Neuroradiology, University Medical Center Mainz, Mainz, Germany; <sup>2</sup>Department of Neuroradiology, ASST Santi Paolo E Carlo, Milan, Italy; <sup>3</sup>Department of Interventional Radiology, Turku University Hospital, Turku, Finland; <sup>4</sup>Department of Neuroradiology, University Medical Center Schleswig-Holstein, Lübeck; <sup>5</sup>Department of Diagnostic and Interventional Neuroradiology, School of Medicine, University Hospital Centre Zagreb, Zagreb, Croatia; <sup>6</sup>Department of Neuroradiology, Santa Corona Hospital, Pietra Ligure, Italy; <sup>7</sup>Neuroradiology, Asklepios Hospitals St. Georg, Hamburg, Germany; <sup>8</sup>Department of Diagnostic and Interventional Neuroradiology, University Medical Center Goettingen, Goettingen, Germany

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**Introduction** Intracranial devices are an increasingly recognized option in endovascular therapy of cerebral aneurysms, in particular in wide-necked and ruptured aneurysms. The Trezza Embolization Device (TED) is a novel intracranial device. Literature about TED is scarce, as the prospective post-market multicenter study TREAT is currently still recruiting.

**Aim of Study** To evaluate first experience and short-term follow-up (FU) of the novel TED in the therapy of cerebral aneurysms.

**Methods** Retrospective multicenter analysis of 25 aneurysms (3 ruptured) in 25 patients (18 females, mean age 62.4 years) treated with TED. Successful deployment of the device, necessity of adjunct devices, complications, occlusion according to Raymond-Roy occlusion classification (RROC), initially and at first FU after treatment were evaluated.

**Results** Initial selected TED was successfully implanted in 24/25 (96%) cases. In 6/25 (24%) aneurysms two TED were implanted. In two (8%) cases adjunct devices were necessary, in one case stent-assistance, and in another both balloon- and stent-assistance. Except symptomatic thromboembolic event in one (4%) case, no further relevant complications were