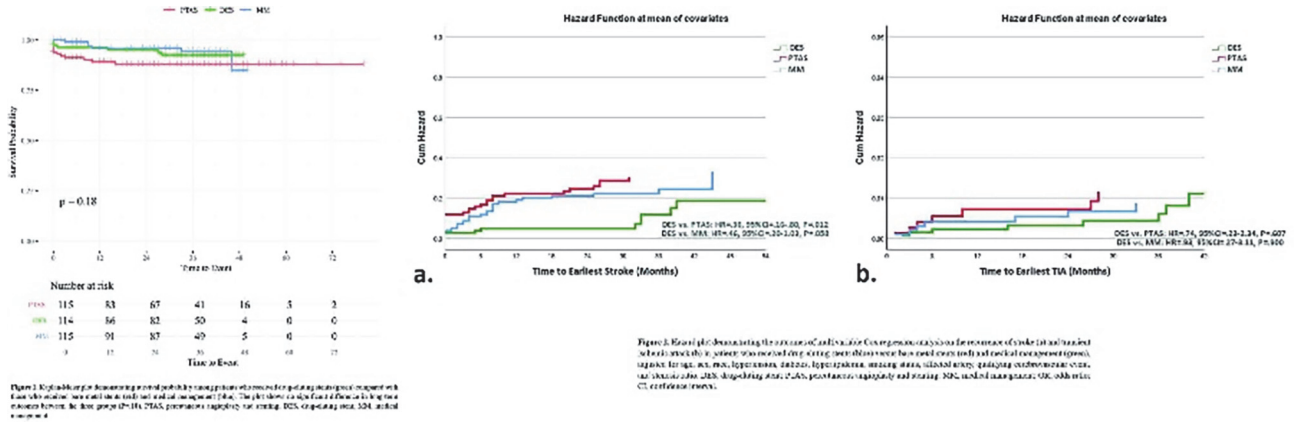

Abstract O-017 Figure 1 and 2

pragmatic trials comparing MM with novel stent technologies are necessary.

Disclosures O. Shoraka: None. **R. Grandhi:** None. **S. Miller:** None. **J. Roy:** None. **V. Jaikumar:** None. **B. Musmar:** None. **O. Tanweer:** None. **J. Burkhardt:** None. **P. Jabbour:** None. **A. Siddiqui:** None. **F. Siddiq:** None. **A. Hassan:** None.

O-018 ASSOCIATION BETWEEN OZEMPIC USE AND STROKE RISK: A NATIONWIDE EMERGENCY DEPARTMENT ANALYSIS

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Abstract Semaglutide (Ozempic), a GLP-1 receptor agonist, has shown promise in reducing cardiovascular and cerebrovascular events in controlled trials. However, its real-world impact on acute ischemic stroke risk remains poorly characterized. We aimed to evaluate the association between Ozempic use and stroke risk using the Nationwide Emergency Department Sample (NEDS), which contains both CPT and ICD-10 codes across a nationally representative population.

Method Ozempic users were identified using a composite coding strategy. Patients were flagged as Ozempic users if they had a diagnosis of either diabetes mellitus (E11.xx) or obesity (E66.xx), in combination with at least two of the following: a long-term drug therapy code (Z79.899), a subcutaneous injection administration code (CPT 96372), and unclassified or miscellaneous drug codes (CPT J3490 or J3590), frequently used to bill for semaglutide. This multi-code approach was designed to enhance specificity in the absence of direct pharmacy dispensing data. Survey-weighted logistic regression was conducted to assess the odds of stroke among Ozempic users before and after propensity score matching.

Results In the unmatched cohort, Ozempic use was associated with significantly reduced odds of stroke (adjusted OR: 0.298, 95% CI: 0.277–0.321, $p < 0.001$). Ozempic users also exhibited lower inpatient mortality, shorter hospital length of stay, and reduced total hospital charges. Following 1:1 propensity score matching, the protective association persisted (adjusted OR: 0.330, 95% CI: 0.301–0.361, $p < 0.001$), with a markedly lower adjusted odds of death (OR: 0.027, 95% CI: 0.004–0.19, $p < 0.001$). Demographically, Ozempic users were younger, more frequently admitted from the ED, and disproportionately represented among patients from urban teaching hospitals and middle-income ZIP codes.

Conclusion Ozempic use was independently associated with a lower risk of acute ischemic stroke and all-cause mortality among patients with diabetes or obesity. Although these results support a potentially protective effect of semaglutide, further research using pharmacy-linked datasets is warranted to validate these findings and ensure accurate exposure classification.

Disclosures A. Elbayomy: None. **M. Stenerson:** None. **A. Ahmed:** None. **L. Mcguire:** None.

O-019 A SAFETY AND FEASIBILITY CLINICAL TRIAL OF MIDDLE MENINGEAL ARTERY EMBOLIZATION AND TRANSVASCULAR DRAINAGE OF NON-ACUTE SUBDURAL HEMATOMAS

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Introduction The two-step management that combines surgical evacuation of non-acute subdural hematoma (SDH) for rapid brain decompression and middle meningeal artery embolization (MMAe) to prevent re-bleeding as a surgical adjunct is becoming a dominant treatment paradigm of symptomatic SDH. However, this approach requires two different interventions with their associated risks, prolonged ICU and hospital stay and drastically increases medical care costs. A technology was developed for MMAe and endovascular drainage of non-acute SDH. We report the procedural results of the first cohort of consecutive patients treated with this system.

Methods A prospective, single-arm, first-in-human study (EMBODRAIN Study) was conducted to evaluate the safety and feasibility of endovascular drainage of non-acute SDH and MMAe using a purpose-built technology (Endovascular Horizons, Inc) for transvascular access to the intracranial intradural space.

Results Ten (10) consecutive patients (8 males (80%), average age 73.6 years) underwent MMAe and endovascular drainage of SDH. Radiographically, the cohort included sub-acute (n=2), chronic (n=2), acute-on-chronic (n=3), and trabeculated SDH type (n=3). Acute clinical success (defined as

MMAe and transvascular drainage of the SDH with no conversion to open surgical drainage) and acute technical success (defined as ability to create a leak-proof transvascular passageway and access the subdural space with a microcatheter, drain the SDH and occlude the MMA) was achieved in all cases (10/10). No Serious Adverse Events (SAE) including death, life-threatening illness or injury, persistent or significant disability or incapacity, or the need for medical or surgical intervention to prevent permanent impairment to a body structure or function were recorded at 30-days. No patient required open surgical drainage. The SDH volume at baseline was an average of 188.1 mL and decreased immediately post-procedurally to an average of 65.5 mL (>65% volumetric reduction). The SDH thickness at baseline was an average of 23.4 mm, and decreased post-procedurally to an average of 14.4 mm. The midline shift at baseline was an average of 9.7 mm and decreased post-procedurally to an average of 4.2 mm. Post-procedural flat panel CT and head CT at 72-hours did not demonstrate interval hemorrhage in any of the cases. The average Modified Rankin Scale Score and Markwalder grade decreased from 2.7 and 1.9 , respectively at presentation to 1.3 and 0.7, respectively at 72hrs post-intervention. There were no recurrence or progression requiring surgery, and no deterioration in neurological function.

Conclusions MMAe and transvascular drainage of a broad range of symptomatic non-acute SDH in a single, fully endovascular procedure is feasible and is associated to rapid radiographic and clinical improvement.

Disclosures P. Lylyk: None. **P. Lylyk:** None. **I. Lylyk:** None. **C. Bleise:** None. **N. Perez:** None. **E. Scrivano:** None. **J. Lundquist:** None. **D. Andrist:** 5; C; CTO Endovascular Horizons. **L. Savastano:** 4; C; Founder, Endovascular Horizons. 6; C; Inventor (Royalties agreement).

O-020 THE EMBO-02 TRIAL: MIDDLE MENINGEAL ARTERY EMBOLIZATION WITH NEOCAST™, A NEXT-GENERATION LIQUID EMBOLIC

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Introduction NeoCast is a novel, solvent-free, non-adhesive, shear-thinning, liquid embolic agent designed to reproducibly achieve distal penetration of the microvasculature. We report the results of EMBO-02, the first-in-human trial of NeoCast for Middle Meningeal Artery (MMA) embolization in patients with chronic subdural hematoma (cSDH).

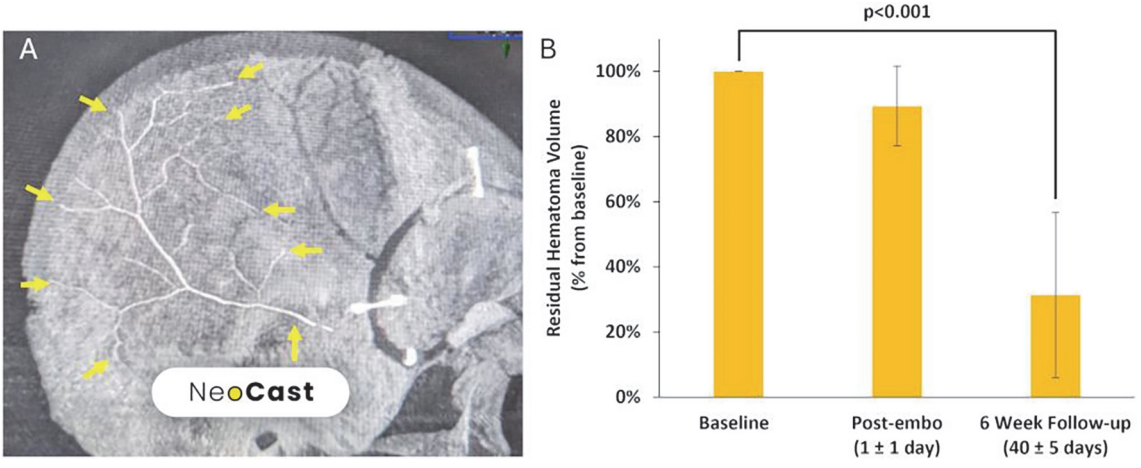
Methods EMBO-02 study (ACTRN12624000659505) is an open-label, multicenter, prospective, externally monitored, core lab adjudicated, feasibility clinical trial. The primary safety endpoint is device related disabling stroke or neurological death within 30 days of embolization. The primary feasibility endpoint is the successful injection of NeoCast into the MMA, resulting in complete occlusion at, or distal to, the point of injection. Key inclusion criteria include cSDH $\geq$ 10 mm, a pre-morbid mRS $\leq$ 2, and planned MMA embolization as an adjunct to standard management. Additional assessments include change in hematoma thickness and volume at 6 weeks, 3 month, and 6 month follow-up.

Results

Ten subjects (age range: 51–87 years old, 8 male and 2 female) were enrolled across three sites with an average hematoma thickness of 17.6 ± 4.7 mm. A total of 18 NeoCast injections were completed in 10 subjects (three subjects with bilateral cSDH, 13 sides embolized), 9/10 patients received embolization with non-surgical management. All target MMA vessels were successfully embolized with NeoCast resulting in complete occlusion without non-target embolization. The average hematoma volume significantly decreased from 74.1 ± 33.0 mL at baseline to 25.9 ± 26.1 mL at 6 weeks ($p<0.001$). Residual hematoma volume at 6 weeks was reduced to 31 ± 26% percent of baseline ($p<0.001$). Available imaging data indicates that it took an average of 36 ± 10 days for cSDH volume to decrease by greater than 50%. No primary safety endpoints occurred. There have been no device-related adverse events or reinterventions to date.

Conclusion To date, in the EMBO-02 population, MMAE with NeoCast has demonstrated feasibility, primary safety, and has resulted in significant early hematoma resorption.

Disclosures L. Slater: 1; C; Arsenal Medical. **T. Phillips:** 1; C; Arsenal Medical. **L. de Villiers:** 1; C; Arsenal Medical. **D. Fiorella:** 2; C; Arsenal Medical. 4; C; Arsenal Medical. **A. Arthur:** 2; C; Arsenal Medical. 4; C; Arsenal Medical. **J. Groom:** 4; C; Arsenal Medical. 5; C; Arsenal Medical.



Abstract O-020 Figure 1