Ischemic

2.1. Logistics

O01 REMOTE TELEPROCTORING WITH THE TEGUS SYSTEM FOR MECHANICAL THROMBECTOMY IN A NON-COMPREHENSIVE STROKE CENTER: INITIAL PRELIMINARY DATA ON CLINICAL EXPERIENCE

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Introduction Mechanical thrombectomy (MT) is typically performed by experienced neurointerventional radiologists. However, logistical and geographic limitations often hinder access to rapid MT, especially in remote areas.

Aim of Study To explore the use of remote teleproctoring to support MT conducted by general interventional radiologists (IR) at thrombectomy capable centers, compared to on-site proctoring outcomes.

Methods The Arnau de Vilanova Hospital in Spain, serving 500,000 people over 12,000 km², used to transfer stroke patients requiring MT to a comprehensive stroke center 160 km away. To overcome COVID-19 mobility restrictions, the Tegus Teleproctoring System was installed. From April 2021 to May 2023, general IR conducted MT either with on-site proctor supervision or teleproctoring support. We aim to compare clinical outcome of patients receiving MT according to proctoring method

Results During the study, 51 MTs were performed: 17 with TEGUS teleproctoring and 34 with on-site proctoring. Both groups had similar baseline characteristics, except for NIHSS scores (Tegus 9 (IQR 6-20) v/s 18 (IQR 12-22), p: 0,034). No significant differences were found in door-to-revascularization time (82 (SD 28.2) v/s 84 (SD 26.4) min, p: 0.895). The final mTICI distribution and 90-day mRS scores were comparable. There were no reports of symptomatic intracranial hemorrhage in either group.

Conclusion This study shows the feasibility of remote teleproctoring during emergent cases of MT in a remote hospital. It could improve the learning curve of interventional radiologists with limited experience in MT, and lower the territorial inequity associated to MT.

Disclosure of Interest no.

2.3. Treatment

O02 FIRST IN MAN STUDY OF OTR4132, A HEPARAN SULFATE MIMETIC NEUROPROTECTOR, INJECTED INTRA-ARTERIALLY AFTER ENDOVASCULAR THROMBECTOMY IN PATIENTS WITH ACUTE ISCHEMIC STROKE: THE MATRISS TRIAL

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Introduction There is an important need for the development of neuroprotective therapeutic agents that could be combined to reperfusion strategies in acute ischemic stroke to further improve functional outcome. OTR4132 is a polymer of glucose engineered to mimic heparan sulphate (HS), which demonstrated neuroprotective effects in animal models.

Aim of Study To assess the safety, tolerability of OTR4132 and to identify the highest, well-tolerated, and safest single dose in acute stroke patients

Methods The MATRISS study is a multi-center, first-in-man, open label, dose-escalation study. OTR4132 was administered intra-arterially at a rate of 1mL/min over 10 minutes, following endovascular thrombectomy recanalization (TICI score 2b - 3). The primary endpoint was the rate of investigational treatment-related severe adverse events occurring from baseline to 7 days after inclusion. All other safety and efficacy endpoints were exploratory.

Results Nineteen patients were recruited in the study between March 2022 and March 2024 and 6 different doses of OTR4132 were tested (from 0.2 mg to 2.5 mg).

No serious adverse event attributable to the investigational treatment was noticed at any of the 6 tested doses.

Although, the study was not powered to demonstrate efficacy, in the highest dose groups, the rate of severe intracranial hemorrhages at 24 hours was lower, better functional recovery