

acceptability curve showed 100% acceptability of MT at the willingness to pay (WTP) of US\$40 000 for the eight countries.

Conclusion MT is efficient versus MM alone for patients with low ASPECTS in eight countries across Europe. Patients with a large ischemic core could be treated with MT because it is both clinically beneficial and economically sustainable.

Disclosure of Interest Nothing to disclose.

1.1 HAEMORRHAGIC – Aneurysms

004/35

COMPARISON OF ARTERIAL WALL INTEGRATION OF DIFFERENT FLOW DIVERTERS IN RABBITS : THE CICAFLW STUDY

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Introduction New coated flow-diverters (FDs) claim for antithrombotic properties and increased arterial wall integration.

Aim of Study This study aims to compare in vivo endothelial coverage of coated and uncoated FD in the setting of different antiplatelet regimens.

Methods In rabbit aortas, 3 different FDs (Silk Vista – SV; Pipeline with Shield technology – PED shield; Surpass Evolve – SE) were implanted in each animal with 3 different antiplatelet regimens: no antiplatelet therapy, aspirin alone, or aspirin and ticagrelor. Four weeks after FD implantations, angiography, flat-panel CT and Optical Coherence Tomography (OCT) were performed before harvest of the aorta. Extensive histopathology analyzes were performed including Environmental Scanning Electron Microscopy (ESEM), Multiphoton Microscopy (MPM) and histological staining with qualitative and/or quantitative assessment of device coverage.

Results All 23 included FDs remained patent without hyperplasia. Qualitative stent coverage assessment revealed that there were no statically significant differences between all FD groups ($p=0.19$, $p=0.45$, $p=0.40$, and $p=0.84$ for OCT, ESEM, MPM and histology, respectively). Quantitative neointimal measurement histopathologic sections also showed similar results between all 3 FD groups ($p=0.70$); but was significantly different between the 3 groups of antiplatelet regimens ($p=0.07$) with higher rate in the no antiplatelet group ($p=0.05$ versus aspirin alone and $p=0.03$ versus aspirin and ticagrelor).

Conclusion Our study provides evidence that FD integration into the arterial wall is similar between coated (PED shield) and uncoated devices (SV, SE) despite the use of coated

surfaces, whichever the antiplatelet regiment. There is a need to promote FD integration with specific surface coverage.

Disclosure of Interest Nothing to disclose.

2.2 ISCHEMIC – Imaging

005/57

VALIDATION OF A NOVEL MULTIPHASE CTA PERFUSION TOOL COMPARED TO CTP IN PATIENTS WITH SUSPECTED ACUTE ISCHEMIC STROKE

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Introduction A recently developed multiphase-computed-tomography-angiography(mCTA) tool generates perfusion maps, similar to CT-perfusion(CTP) (i.e., mCTA-perfusion [mCTAp]).

Aim of Study To validate the clinical utility of mCTAp.

Methods In this multi-reader-multi-case analysis, we included baseline images: mCTAp(StrokeSENS-algorithm) and CTP (4D; GE-Healthcare) from 121 randomly selected patients whose scans were not part of algorithm-development. After excluding 2/121 scans due to poor image-quality, three experienced radiologists read Tmax-and rCBF-maps generated by the test(mCTAp) and reference(CTP) modality. The two reading sessions were separated by 5-days with randomized reading order. Core-laboratory imaging assessments-that used NCCT, mCTA and CTP-were considered as ground-truth. We used 'reader' as a random-effect to calculate the diagnostic performance for both modalities(mCTAp/CTP) regarding ischemia detection and side/location. Interpretation-time and inter-rater variability were compared across the modalities.

Results AUCs(95%CI) for detecting ischemia using mCTAp and CTP were 0.85(95%CI0.8–0.9) and 0.84(0.8–0.9) respectively($p=0.43$). AUCs for the affected side were 0.94(0.92–0.97) and 0.96(0.94–0.98) ($p=0.69$) respectively; for detecting LVO were 0.84(0.8–0.9) and 0.86(0.8–0.9), ($p=0.31$) respectively; M2-or-distal occlusion were 0.79(0.73–0.84) and 0.88(0.83–0.92) ($p=0.22$) respectively, for ACA-occlusion 0.82(0.66–0.98) and 0.93(0.82–1.00) ($p=0.15$) respectively and for PCA-occlusions 0.9(0.8–1) and 0.99(0.98–0.99) ($p=0.01$) respectively. The median(IQR) time for image interpretation was 62s(IQR 46–78) and 59s(IQR 42–69) for mCTAp and CTP respectively ($p=0.15$). Fleiss` Kappa-values for inter-rater reliability in detecting ischemia were 0.5 and 0.8 for mCTAp and CTP respectively.

Conclusion mCTAp shows similar performance compared to CTP in assisting readers to detect ischemia and its side/location, requiring less radiation exposure, acquisition time and contrast-dose compared to additional-CTP, but mainly as it relates to proximal vessel occlusions.

Disclosure of Interest Dr. Menon holds patents on systems of triage in acute stroke, for LVO detection and for mCTAp, and stock ownership in Circle Cardiovascular Inc. Dr. Bala has nothing to declare. Dr. Duszynski is an employee of, and holds stock options for Circle Cardiovascular Imaging Inc. Dr. Nayem Pinky, Dr. Golan and Luis A Souto Maior Neto are