scans; and 4. Motion compensation post-processing algorithm technology.

Methods Patients with AIS who received endovascular mechanical thrombectomy were prospectively included in this monocentric study (n=105).

Study 1: Image quality of non-contrast circular CB-CT scans were analyzed using 2 quantitative and 6 qualitative measures and were compared to CT. Study 2: 6 types of image artifacts were compared between circular and dual-axis CB-CT scans. Study 3: Clot detection, ischemic core and collateral blood supply was assessed on CB-CT Perfusion imaging and compared to baseline CT and DSA imaging. Study 4: Motion artifacts were assessed on all scans before and after post-processed using a motion artifact correction algorithm.

Results Study 1: Newer non-contrast CB-CT circular scans had higher mean contrast-to-noise ratio and lower mean image noise compared to older generation protocols. The largest image quality improvements included grey/white matter differentiation (59% improvement), and reduction of image noise and artefacts (63% & 50% improvement, respectively). Study 2: Dual-axis CB-CT scans had significantly improved beam hardening and cone-beam artifacts compared to circular scans. Study 3: CB-CT stroke perfusion imaging software accurately demonstrates vessel patency, ischemic core, and collateral blood supply. Study 4: 51% of all AIS CB-CT scans had motion artifacts, of which 91% improved after post-processing with our motion correction algorithm. Overall 76% of the scans were sufficient for clinical decision making prior to correction, which improved to 93% after post processing with our algorithm.

Conclusions The latest generation of CB-CT scans & technology allow for exclusion of haemorrhages, stroke core definition and demonstration of brain perfusion and collaterals. These improvements suggest that CB-CT is acceptable for emergency stroke imaging assessment before mechanical thrombectomy, which may reduce door-to-groin puncture times and improve patient outcomes.

REFERENCE

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**Abstract O-021 Figure 1**

**METHODS**

**Results**

In a national database of 292 patients, we identified those who received MMAE for cSDH. Patient demographics, baseline characteristics, comorbidities, and clinical outcomes were evaluated within 1-year post-MMAE. 1-year mortality and recurrence analyses were performed after propensity score matching to control for baseline characteristics and comorbidities.

**Conclusions**

MMAE is a safe and effective minimally invasive procedure for the treatment of cSDH. This represents the first analysis of patients undergoing MMAE for cSDH using a national database.

Disclosures A. Nia: None. R. Lall: None. V. Srinivasan: None. P. Kan: None.

**Abstract O-022 Figure 1**

**METHODS**

We queried all MMAE cases up to March 19th, 2021 from the TriNetX Analytics Network. We identified patients ≥18 years old who underwent MMAE for the treatment of cSDH. Patient demographics, baseline characteristics, comorbidities, and clinical outcomes were evaluated within 1-year post-MMAE. 1-year mortality and recurrence analyses were performed after propensity score matching to control for baseline characteristics and comorbidities.

**Conclusions**

MMAE is a safe and effective minimally invasive procedure for the treatment of cSDH. This represents the first analysis of patients undergoing MMAE for cSDH using a national database.

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