FACTORS DETERMINING USE OF REPERFUSION THERAPY IN EXTENDED TIME WINDOW IN ACUTE ISCHEMIC STROKE

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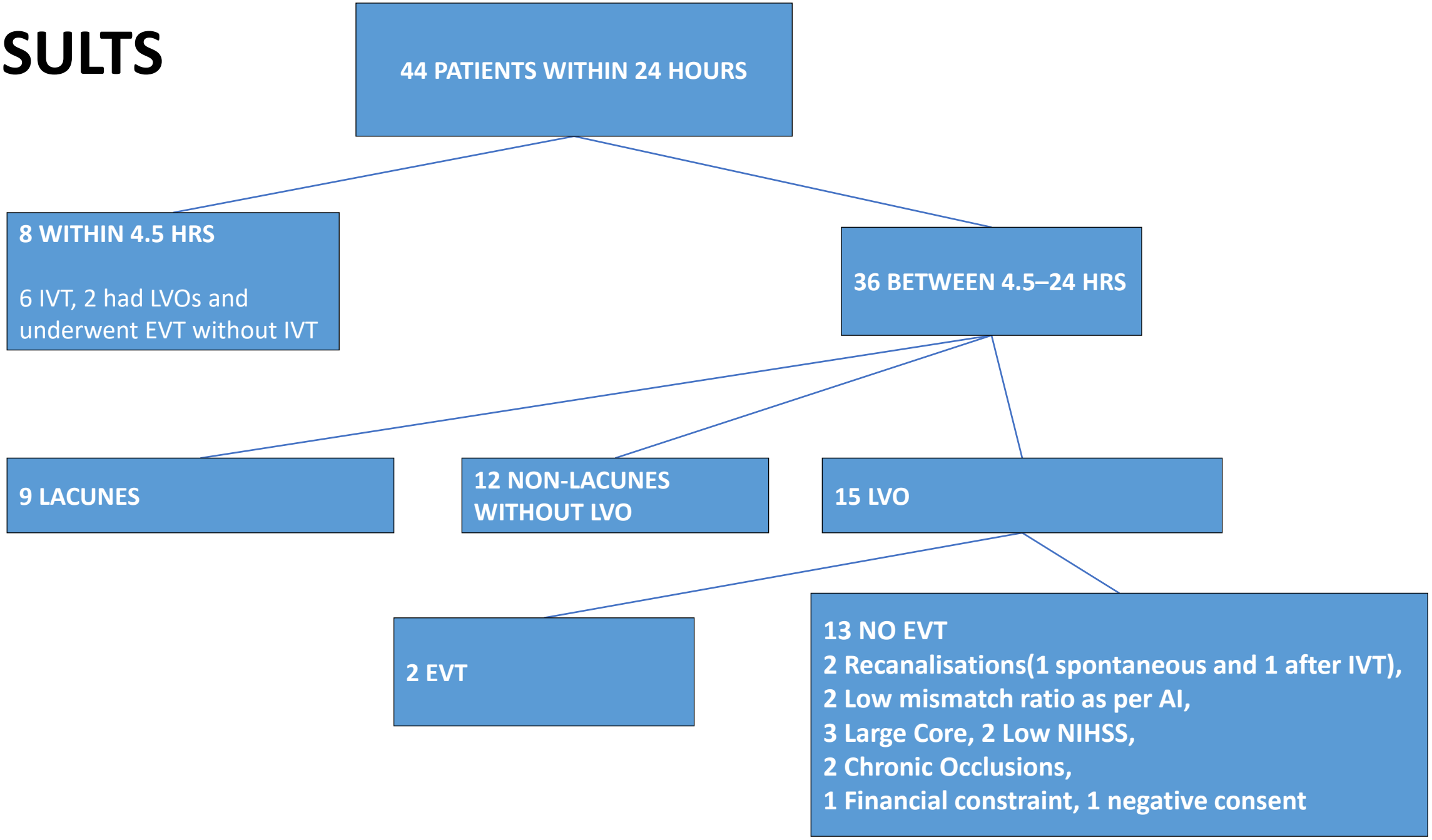
BACKGROUND/AIMS:

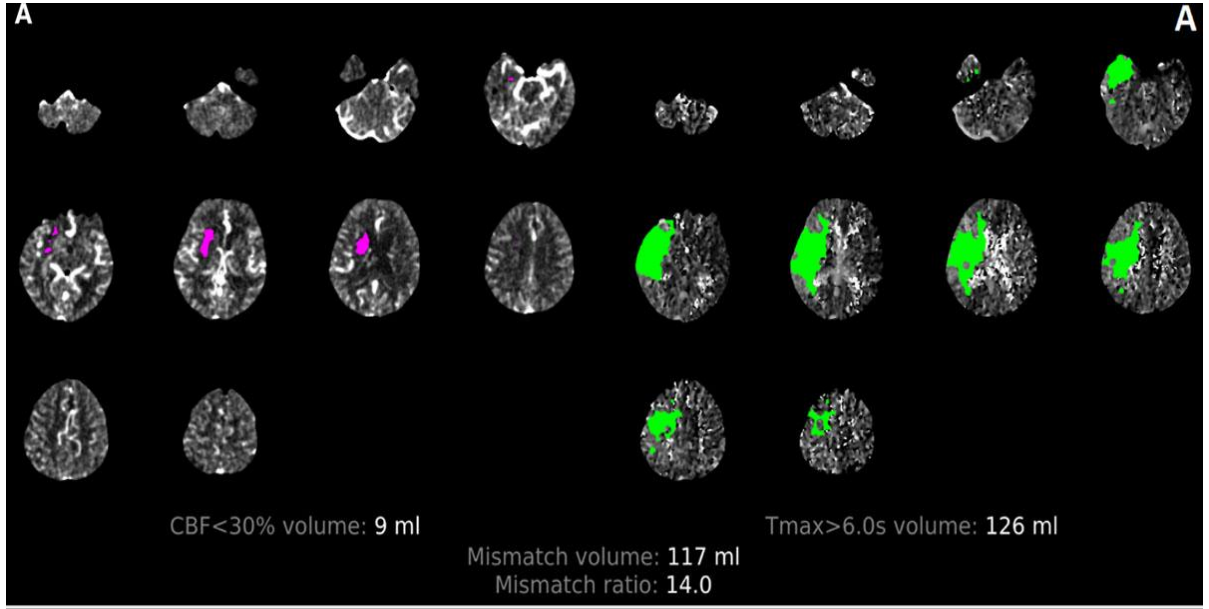
- Eligibility for reperfusion therapies beyond the standard time window in acute ischemic stroke depends on determination of Penumbra by MRI/CT based clinical-core volume mismatch and perfusion based imaging by AI software.
- However, all patients reporting to hospital within this period do not get the reperfusion therapy.
- The aim of the present study was to assess factors influencing use of IV thrombolysis (IVT) and/or endovascular thrombectomy (EVT) in the extended window period at our centre.

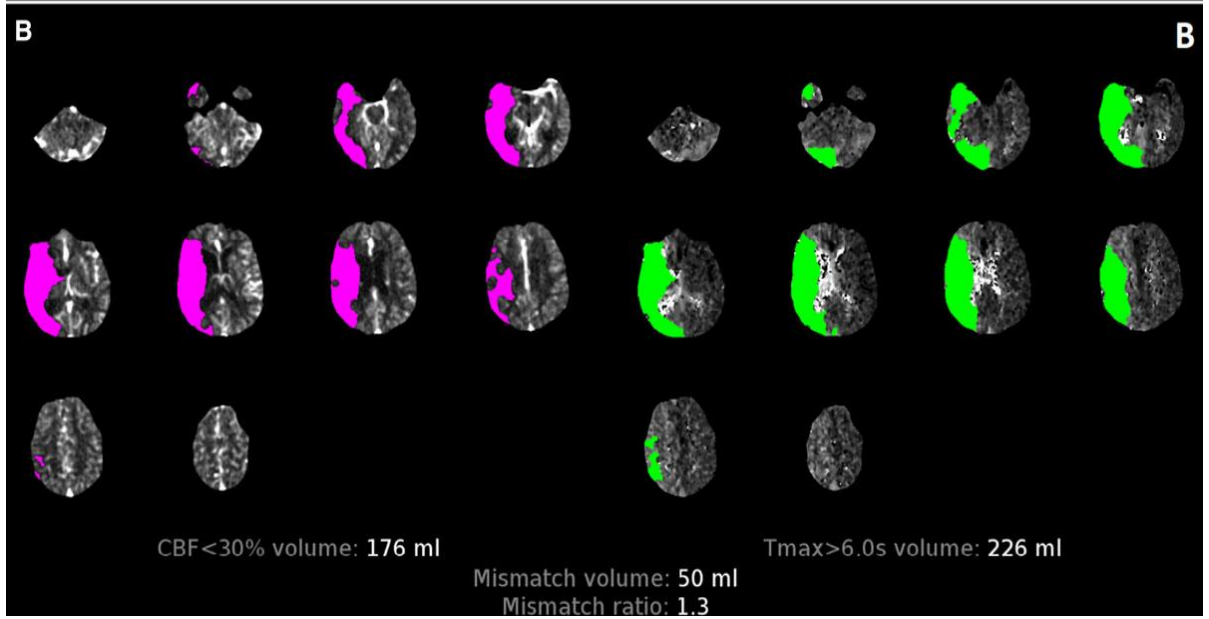
METHODOLOGY:

- Patients presenting within 24 hours of onset, underwent clinical evaluation, MRI with DWI / PWI sequences and in some, AI based evaluation of infarct core and penumbra.

RESULTS


44 PATIENTS WITHIN 24 HOURS
8 WITHIN 4.5 HRS
6 IVT, 2 had LVOs and underwent EVT without IVT
36 BETWEEN 4.5–24 HRS
9 LACUNES
12 NON-LACUNES WITHOUT LVO
15 LVO
2 EVT
13 NO EVT
2 Recanalisations(1 spontaneous and 1 after IVT),
2 Low mismatch ratio as per AI,
3 Large Core, 2 Low NIHSS,
2 Chronic Occlusions,
1 Financial constraint, 1 negative consent





DISCUSSION

- All patients presenting within 4.5 hours of onset received reperfusion therapies(either IVT or EVT).
- Out of 15 patients with LVO presenting between 4.5 and 24 hours of onset, 13 patients did not undergo EVT for the mentioned reasons.
- AI based software, rather than helping to include more patients, excluded 2 patients from EVT.

CONCLUSION

Clinical assessment and non-AI imaging methods like DWI-FLAIR mismatch still remain the main investigations in guiding reperfusion therapies in the extended window period. Large core Infarct, low NIHSS, non-affordability are other challenges in use of reperfusion therapy within extended window.