BRIDGING THROMBOLYSIS VERSUS DIRECT MECHANICAL THROMBECTOMY IN PATIENTS WITH STROKE: A NATIONWIDE PROPENSITY SCORE-MATCHED CASE-CONTROL STUDY IN UNITED KINGDOM

Abdel Douiri [1], Youssef Hbid[1], Kaili Stanley[1], Bhalla, A.[1,2], James, M.A.[1,3]

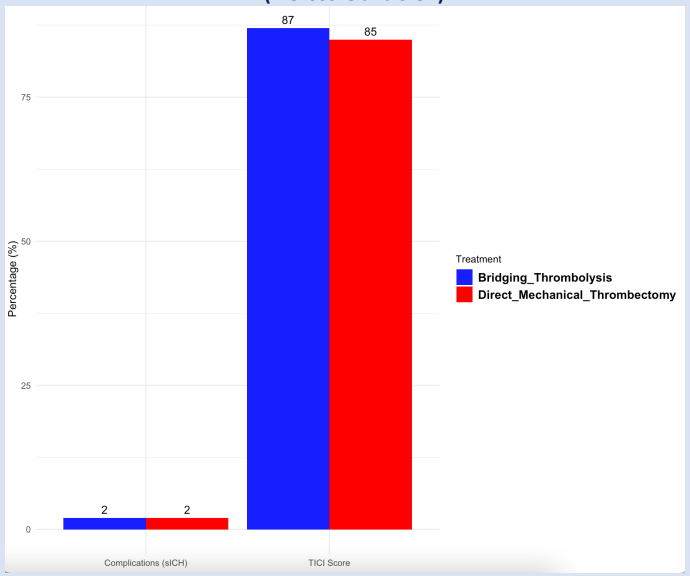
[1] *Sentinel Stroke National Audit Programme, King's College London, UK* , [2] *Guy's and St Thomas' NHS Foundation Trust, London, UK* ,

[3] *Royal Devon University Healthcare NHS Foundation Trust, Exeter, UK*

Background and Aims

- Recent clinical trials did not demonstrate non-inferiority of direct endovascular thrombectomy compared to bridging therapy.
- We aim to evaluate the efficacy of thrombectomy alone compared to thrombectomy with thrombolysis in real-world clinical practice.

Figure 2. Comparison: Bridging Therapy Vs Direct Thrombectomy (TICI score and sICH)



Results

Figure 1. Forest Plot of Odds Ratios

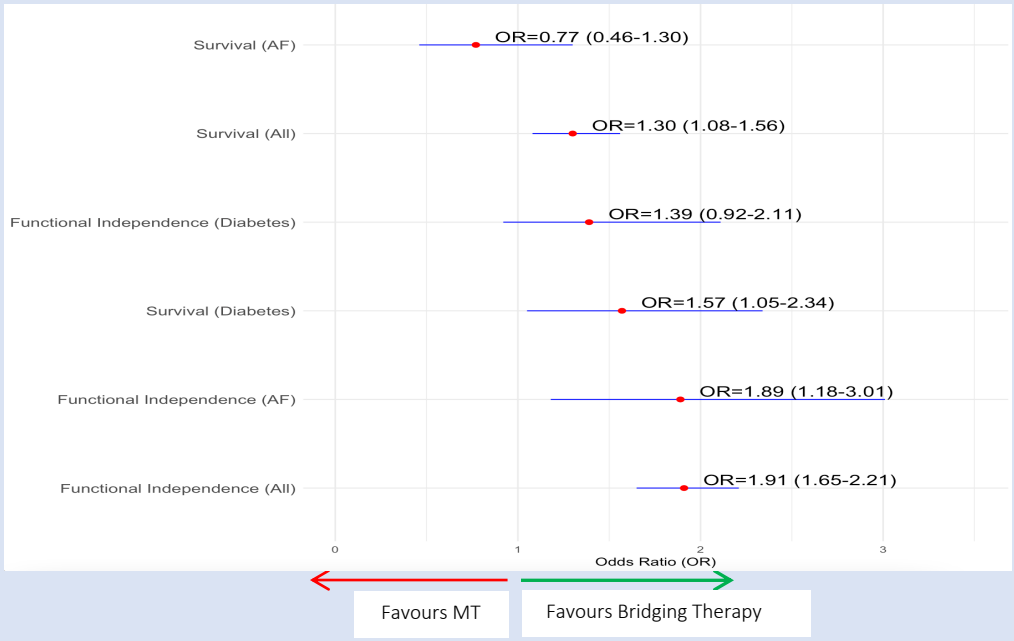
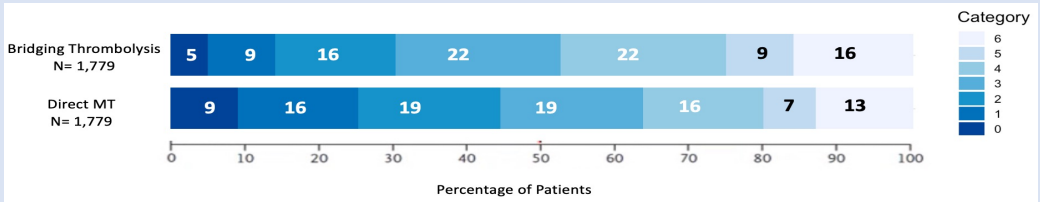


Figure 3. Distributions of mRS Categories at discharge: Treated With Bridging Therapy Vs Direct Thrombectomy



Methods

➢ ***Data Source:***

- Data were extracted from the Sentinel Stroke National Audit (SSNAP) Programme for patients admitted between 2016-2022, with a case ascertainment rate of >95%.
- Among 471,306 ischemic strokes, 1,779 patients who received bridging therapy were matched using propensity score to those undergoing thrombectomy alone.

➢ ***Study Design and Matching Procedure:***

- One-to-one propensity score matching retrospective cohort study.
- Propensity score matching (1:1 ratio, logistic regression with the nearest-neighbor method) were based on the following factors: age, sex, pre-stroke mRS, NIHSS score, hypertension, Atrial Fibrillation (AF), and diabetes.

➢ ***Endpoints and Statistical Methods:***

- We assessed the endpoints of good functional independence (mRS 0-2) and survival at discharge using logistic regression and Cox proportional-hazards models.
- Subgroup analyses were conducted on patients with AF and diabetes.
- safety endpoint: Symptomatic intracranial hemorrhage.

Conclusion:

Data from the UK National Stroke Registry showed a superiority in survival of bridging therapy over thrombectomy alone, supporting its recommendation as the standard treatment.

Acknowledgements: Thank you to all the individuals and organisations who participate in SSNAP.

Contact: abdel.douiri@kcl.ac.uk