**Supplemental material**

**Supplemental table 1. Newcastle-Ottawa scale for study quality assessment.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Study | Selection | Comparability | outcome | Score | Strength |
| S1 | S2 | S3 | S4 | C | O1 | O2 | O3 |  |  |
| Salahuddin, 201710 | \* | \* | \* | \* |  | \* | \* | \* | 7 | High |
| Bhogal, 201712 | \* | \* | \* | \* |  | \* | \* | \* | 7 | High |
| Coutinho, 201613 | \* | \* | \* | \* |  | \* | \* | \* | 7 | High |
| Castonguay, 201619 | \* | \* | \* | \* |  | \* | \* | \* | 7 | High |
| Protto, 201614 | \* | \* | \* | \* |  | \* | \* | \* | 7 | High |
| Dorn, 201517 | \* |  | \* | \* |  | \* | \* | \* | 6 | Moderate |

S1: Definition of cases; S2: Representativeness of cases; S3: Selection of comparators; S4: Definition of comparators. C: Comparability: Control for baseline clinical (NIHSS) or radiological (ASPECT) factors. O1: Ascertainment of intervention effect: O2: Same methods for ascertainment of 2 groups; O3: Adequate follow-up.

**Supplemental table 2. Clinical and radiologic outcomes.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Study | TICI2b/3 | mRS 0-2 | sICH | Mortality |
| **M1** | **M2** | **M1** | **M2** | **M1** | **M2** | **M1** | **M2** |
| Lapergue, 201718 | 83 | 87 | NR | NR | NR | NR | NR | NR |
| Salahuddin, 201710 | 81.7 | 84.7 | 51 | 55.9 | 3.3 | 3.4 | 20 | 13.6 |
| Bhogal, 201712 | 88.5 | 90.5 | 37.2 | 54.7 | 5.2 | 4.71 | 24.4 | 14.2 |
| Coutinho, 201613 | 82 | 85 | 56 | 60 | 0.8 | 2 | 10 | 12 |
| Castonguay, 201619 | 80.5 | 76.2 | 51 | 57.4 | 5.6 | 6 | 16.1 | 13.2 |
| Protto, 201614 | 94 | 77 | 63 | 50 | 17 | 18 | 13 | 14 |
| Dorn, 201517 | 76 | 93.3 | 43.3 | 60 | 5.8 | 6.7 | 21.2 | 6.7 |
| Atchaneeyasakul, 201720 | NA | 83 | NA | 46 | NA | 9 | NA | NR |
| Kim, 201615 | NA | 78 | NA | 80.4 | NA | 2.4 | NA | 2.4 |
| Sarraj, 201622 | NA | 78 | NA | 62.8 | NA | 5.6 | NA | NR |
| Park, 201621 | NA | 84 | NA | 78 | NA | 0 | NA | 3.3 |
| Flores, 201516 | NA | 78.5 | NA | 60 | NA | 9 | NA | 13.8 |

TICI, thrombolysis in cerebral infarction; mRS, modified Rankin scale; sICH, symptomatic intracranial hemorrhage.

**Supplemental table 3. Comparison of functional outcomes for M2 thrombectomy vs medical therapy.**

|  |  |  |
| --- | --- | --- |
| M2 thrombectomy vs medical thrapy | Number of cases | Estimate, 95% CI |
| Pooled results, 5 RCTs, 2015  | 91 | 1.28 (0.51-3.21)\* |
| Sarraj, 2016 | 288 | 3.1 (2.1-4.4) \*\* |

\*Adjusted common odds ratio; Shift-analysis in mRS at day 90.

\*\*Odds ratio, mRS 0-2 at day 90.



**Supplemental Figure 1. PRISMA flow-chart for inclusion of eligible studies.**



**Supplemental figure 2. Funnel plot for the assessment of publication bias.**

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**Supplemental Figure 3A. Forest plot of M2 thrombectomy TICI2b/3 recanalization by study**.

**Supplemental Figure 3B.** **Forest plot of M2 thrombectomy symptomatic intracranial hemorrhage by study.**

**Supplemental Figure 3C. Forest plot of M2 thrombectomy mortality by study.**

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**Supplemental Figure 4A. Forest plot of M2 thrombectomy TICI2b/3 recanalization (Restricted analysis to M2 defined as vertical MCA branches in sylvian fissure).**

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**Supplemental Figure 4B. Forest plot of M2 thrombectomy 90-day mRS 0-2 (Restricted analysis to M2 defined as vertical MCA branches in sylvian fissure).**



**Supplemental Figure 4C. Forest plot of M2 thrombectomy sICH (Restricted analysis to M2 defined as vertical MCA branches in sylvian fissure).**



**Supplemental Figure 5A. Forest plot of TICI2b/3 recanalization in M2 vs M1 occlusion thrombectomy.**



**Supplemental Figure 5B. Forest plot of mortality in M2 vs M1 occlusion thrombectomy.**



**Supplemental Figure 5C. Forest plot of sICH in M2 vs M1 occlusion thrombectomy.**

** Supplemental Figure 6A. Forest plot of M2 thrombectomy TICI 2b/3 recanalization (Aspiration vs Stent-retriever thrombectomy)**

**Supplemental Figure 6B. Forest plot of M2 thrombectomy 90-day mRS 0-2 outcome (Aspiration vs Stent-retriever thrombectomy).**