**Supplement Table 1.** Risk of bias assessment using Newcastle Ottawa Scale

|  |  |  |
| --- | --- | --- |
| **Study** | **Quality assessment criteria** | **†Overall risk of bias** |
| **Selection** | **Comparability** | **Outcome** |
| Representativeness of exposed cohort (stroke)? | Ascertainment of Exposure (stroke)? | Demonstration that outcome of interest was not present at start of study? | Study controls (TICI-3) for age/sex? | Study controls (TICI-3) for at least 3 additional risk factors? | Assessment of Outcome (mRS or NIHSS)? | Was follow-up long enough for outcome to occur? | Adequacy of follow-up of cohorts? |
| **Acceptable (\*)** | **Acceptable (\*)** | **Acceptable (\*)** |
| Representative of average adult in community (age/sex/being at risk of stroke) | Secured records, Structured interview | No or only incident cases of mRS ≤2 at day 90 or NIHSS ≤5 at discharge at start of study | Yes | HTN, DM, Smoking, Hyperlipidemia, CAD | Independent blind assessment, record linkage | Follow-up ≥90 days for mRS or at discharge for NIHSS | Complete follow-up, or subjects lost to follow-up unlikely to introduce bias |
| ***Roth et al, 20101*** | \* | \* | \* | \* | - | \* | \* | \* | Low |
| ***Wehrschuetz et al, 20112*** | \* | - | \* | \* | - | - | \* | \* | Medium |
| ***Almekhlafi et al, 20143*** | \* | \* | \* | \* | - | \* | \* | \* | Low |
| **Goktekin et al, 20144** | \* | \* | \* | \* | \* | - | \* | \* | Medium |
| ***Turk et al, 20145*** | \* | \* | \* | \* | - | \* | \* | - | Low |
| ***Sung et al, 20156*** | \* | \* | \* | \* | \* | \* | \* | \* | Low |
| ***Tomsick et al, 20157*** | \* | \* | \* | \* | \* | \* | \* | \* | Low |
| ***Klinger-Gratz et al, 20158*** | \* | \* | \* | \* | - | \* | \* | \* | Low |
| ***Massari et al, 20159*** | \* | \* | \* | \* | - | - | \* | \* | Medium |
| ***Schmitz et al, 201610*** | \* | \* | \* | - | - | \* | \* | \* | Medium |
| ***Ahn et al, 201711*** | \* | \* | \* | \* | - | \* | \* | \* | Low |
| ***Carvalho et al, 201712*** | \* | \* | \* | \* | \* | - | \* | \* | Medium |
| ***Chamorro et al, 201713*** | \* | \* | \* | \* | \* | \* | \* | \* | Low |
| ***Dargazanli et al, 201714*** | \* | \* | \* | \* | \* | \* | \* | \* | Low |
| ***Dargazanli et al, 201715*** | \* | \* | \* | \* | \* | \* | \* | \* | Low |
| ***Imahori et al, 201716*** | \* | \* | \* | \* | \* | - | \* | \* | Medium |
| ***Kaesmacher et al, 201717*** | \* | \* | \* | \* | - | - | \* | \* | Medium |
| ***Kaesmacher et al, 201718*** | \* | \* | \* | \* | \* | - | \* | \* | Medium |
| ***Kleine et al, 201719*** | \* | \* | \* | \* | - | \* | \* | \* | Low |
| ***Prabhakaran et al, 201720*** | \* | \* | \* | \* | - | - | \* | \* | Medium |
| ***Dargazanli, et al, 201821*** | \* | \* | \* | \* | \* | \* | \* | \* | Low |
| **†**Overall risk of bias: *Low* (if it satisfies these 2 questions; 1. Study controls [TICI-3] for age/sex, and 2. Independent blind assessment, record linkage); *Medium* (if it satisfies only one of these 2 questions); or *High* (if it does not satisfy either of these 2 questions). |

**REFERENCES:**

1. Roth C, Papanagiotou P, Behnke S, Walter S, Haass A, Becker C, et al. Stent-assisted mechanical recanalization for treatment of acute intracerebral artery occlusions. *Stroke*. 2010;41:2559-2567

2. Wehrschuetz M, Wehrschuetz E, Augustin M, Niederkorn K, Deutschmann H, Ebner F. Early single center experience with the solitaire thrombectomy device for the treatment of acute ischemic stroke. *Interv*. 2011;17:235-240

3. Almekhlafi MA, Mishra S, Desai JA, Nambiar V, Volny O, Goel A, et al. Not all "successful" angiographic reperfusion patients are an equal validation of a modified tici scoring system. *Interv*. 2014;20:21-27

4. Goktekin O, Tasal A, Uyarel H, Vatankulu MA, Sonmez O, Kul S, et al. Endovascular therapy of acute ischaemic stroke by interventional cardiologists: Single-centre experience from turkey. *EuroIntervention*. 2014;10:876-883

5. Turk A, Spiotta A, Frei D, Mocco J, Baxter B, Siddiqui A, et al. Initial clinical experience with the adapt technique: A direct aspiration first pass technique for stroke thrombectomy. *Journal of NeuroInterventional Surgery*. 2013;5:A1

6. Sung SM, Lee TH, Cho HJ, Kang TH, Jung DS, Park KP, et al. Functional outcome after recanalization for acute pure m1 occlusion of the middle cerebral artery as assessed by collateral cta flow. *Clin Neurol Neurosurg*. 2015;131:72-76

7. Tomsick TA, Yeatts SD, Liebeskind DS, Carrozzella J, Foster L, Goyal M, et al. Endovascular revascularization results in ims iii: Intracranial ica and m1 occlusions. *Journal of Neurointerventional Surgery*. 2015;7:795-802

8. Klinger-Gratz PP, Schroth G, Gralla J, Jung S, Weisstanner C, Verma RK, et al. Protected stent retriever thrombectomy prevents iatrogenic emboli in new vascular territories. *Neuroradiology*. 2015;57:1045-1054

9. Massari F, Henninger N, Lozano JD, Patel A, Kuhn AL, Howk M, et al. Arts (aspiration-retriever technique for stroke): Initial clinical experience. *Interv*. 2016;22:325-332

10. Schmitz ML, Yeatts SD, Tomsick TA, Liebeskind DS, Vagal A, Broderick JP, et al. Recanalization and angiographic reperfusion are both associated with a favorable clinical outcome in the ims iii trial. *Interventional Neurology*. 2016;5:118-122

11. Ahn JH, Jun HS, Song JH, Cho BM, Lee HK, Kim B-C, et al. Rescue mechanical thrombectomy using a retrievable stent for thromboembolic occlusion occurring during coil embolization of ruptured intracranial aneurysms. *Journal of Neurointerventional Surgery*. 2017;9:244-249

12. Carvalho A, Santos T, Cunha A, Gregorio T, Paredes L, Costa H, et al. Need for refining successful revascularization in endovascular treatment of acute ischemic stroke: Data from real-world. *J Neurol Sci*. 2017;13:13

13. Chamorro A, Blasco J, Lopez A, Amaro S, Roman LS, Llull L, et al. Complete reperfusion is required for maximal benefits of mechanical thrombectomy in stroke patients. *Sci*. 2017;7:11636

14. Dargazanli C, Consoli A, Barral M, Labreuche J, Redjem H, Ciccio G, et al. Impact of modified tici 3 versus modified tici 2b reperfusion score to predict good outcome following endovascular therapy. *AJNR Am J Neuroradiol*. 2017;38:90-96

15. Dargazanli C, Consoli A, Gory B, Blanc R, Labreuche J, Preda C, et al. Is reperfusion useful in ischaemic stroke patients presenting with a low national institutes of health stroke scale and a proximal large vessel occlusion of the anterior circulation? *Cerebrovasc. Dis.* 2017;43:305-312

16. Imahori T, Tanaka K, Arai A, Shiomi R, Fujiwara D, Mori T, et al. Mechanical thrombectomy for acute ischemic stroke patients aged 80 years or older. *J Stroke Cerebrovasc Dis*. 2017;26:2793-2799

17. Kleine JF, Wunderlich S, Zimmer C, Kaesmacher J. Time to redefine success? Tici 3 versus tici 2b recanalization in middle cerebral artery occlusion treated with thrombectomy. *J Neurointerv Surg*. 2017;9:117-121

18. Kaesmacher J, Maegerlein C, Zibold F, Wunderlich S, Zimmer C, Friedrich B. Improving mtici2b reperfusion to mtici2c/3 reperfusions: A retrospective observational study assessing technical feasibility, safety and clinical efficacy. *Eur Radiol*. 2017;27:27

19. Kleine JF, Wunderlich S, Zimmer C, Kaesmacher J. Time to redefine success? Tici 3 versus tici 2b recanalization in middle cerebral artery occlusion treated with thrombectomy. *J Neurointerv Surg*. 2017;9:117-121

20. Prabhakaran S, Castonguay AC, Gupta R, Sun C-HJ, Martin CO, Holloway W, et al. Complete reperfusion mitigates influence of treatment time on outcomes after acute stroke. *Journal of Neurointerventional Surgery*. 2017;9:366-369

21. Dargazanli C, Fahed R, Blanc R, Gory B, Labreuche J, Duhamel A, et al. Modified thrombolysis in cerebral infarction 2c/thrombolysis in cerebral infarction 3 reperfusion should be the aim of mechanical thrombectomy: Insights from the aster trial (contact aspiration versus stent retriever for successful revascularization). *Stroke*. 2018