

Supplemental material

Direct Aspiration Stroke Thrombectomy: a comprehensive review

Supplemental Table 1: Baseline characteristics of studies in patients with AC-LVO treated with DA or SR or both treatments as first-line device

Ref	Study design	Study period	Number of patients	Differences in baseline characteristics ?	Inclusion criteria
Lapergue, 2016	PR, RE	November 2012 – June 2014	DA : 124 SR : 119 Total = 243	Yes (IV tPA)	Arterial puncture < 6h
Lapergue 2017	RCT	October 2015 – October 2016	DA : 192 SR : 189 Total = 381	No	Arterial puncture < 6h
Stapleton 2018	Retrospective study	June 2012 – October 2015	DA : 47 SR : 70 Total = 117	Yes (age)	Arterial puncture < 8h
Benson 2018	PR, RE	March 2014 – June 2015	DA : 207 SR : 968 Total = 1175	Yes (pre stroke mRS and level of occlusion)	Arterial puncture < 6.5h
Martini 2019	Retrospective study	2015 – 2016	DA : 107 SR : 121 Total = 228	Yes (pre stroke mRS and stroke onset to hospital arrival)	NA
Kang 2019	Retrospective study	January 2011 – December 2015	DA : 429 SR : 526 Total = 955	Yes (stroke onset to puncture)	NIHSS > 4 Arterial puncture < 10h

Turk 2019	RCT	June 2015 – July 2017	DA : 134 SR : 136 Total = 270	No	Arterial puncture < 6h and ASPECT > 6
Turk, 2014	Retrospective study	May 2008 – October 2012	DA + SR : 144 SR : 27 Total = 171	NA	NA
Delgado 2015	PR, RE	March 2012 – June 2015	DA : 45 DA + SR : 55 Total = 100	Yes (NIHSS score, ASPECT and thrombus location)	NIHSS > 6 and ASPECT > 6
Hesse 2017	PR, RE	2013 - 2016	DA : 164 SR : 102 DA + SR : 184 Total = 450	No	NA
Nogueira 2018	RCT	May 2012 – November 2015	DA : 100 DA + SR : 98 Total = 198	No	Arterial puncture < 8h
Brehm 2019	PR, RE	January 2014 – September 2017	DA : 72 DA + SR : 99 Total = 171	No	NA

ASPECT: Alberta Stroke Programme Early CT; DA: distal aspiration; mRS: modified Rankin scale; NA: not available; NIHSS: National Institutes of Health Stroke Scale; PR: prospective registry; RCT: randomized controlled trial; RE: retrospective analysis; SR: stent retriever; IV tPA: intravenous tissue plasminogen activator