Are we really going to do mechanical thrombectomy for ASPECTS <6?

(Okay, but I have concerns.)

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WHAT ABOUT VERY LOW ASPECTS?

Very low numbers of patients with ASPECTS 0-2

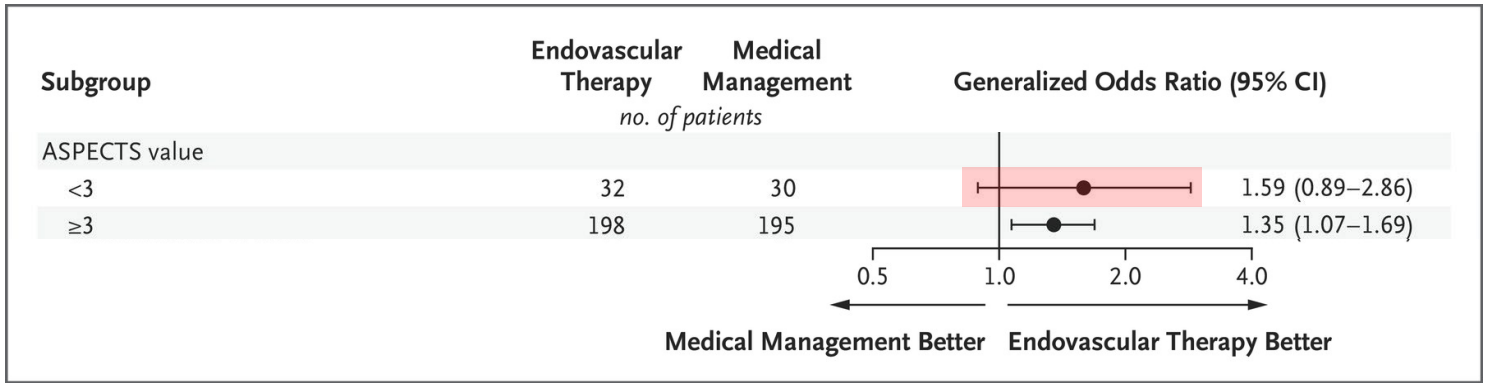
Only 8 patients in RESCUE-Japan LIMIT, only 20 patients in SELECT2

ANGEL-ASPECT had more substantial numbers:
62 patients with ASPECTS 0-2
…but these patients required core infarct 70-100mL

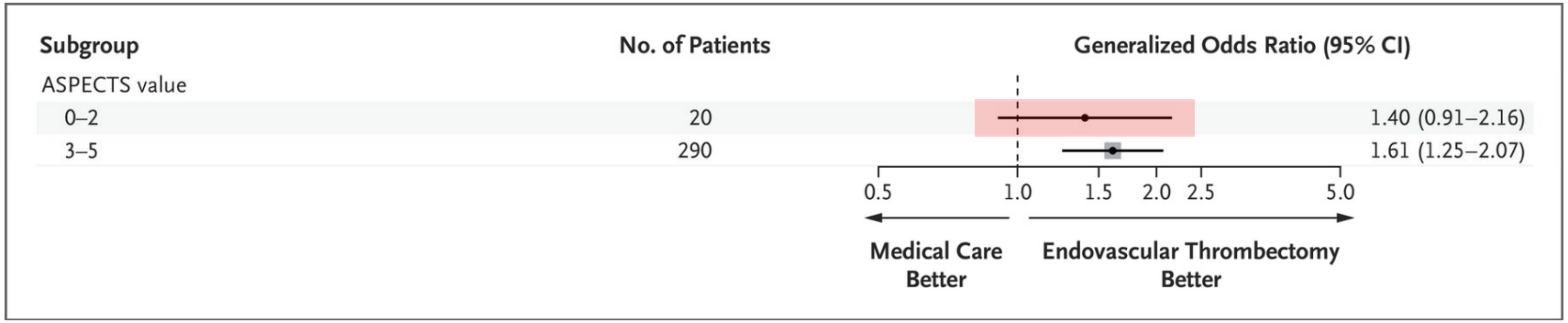
Sarraj A et al. N Engl J Med. 2023 Apr 6;388(14):1259-1271.
Yoshimura S et al. N Engl J Med. 2022 Apr 7;386(14):1303-1313.
Huo X et al. N Engl J Med. 2023 Apr 6;388(14):1272-1283.

ASPECTS 0-2 subgroup did not have robust benefit

ANGEL-ASPECT



SELECT2



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Even ASPECTS 3 didn't perform well?

ASPECTS 0-3 in RESCUE-Japan LIMIT (8 patients 0-2, 98 patients 3) did not show significant improvement in rate of independence, ambulation, or ordinal shift in mRS at 90d

Outcome	No. (%)		OR (95% CI)	*P* value	*P* value for interaction
	EVT group	No-EVT group			
ASPECTS ≤3 (n = 106), No.	56	50	NA	NA	NA
Primary outcome					
mRS score of 0-3 at 90 d	12 (21.4)	9 (18.0)	1.24 (0.47-3.26)	.66	.01
Secondary outcomes					
mRS score of 0-2 at 90 d	3 (5.4)	6 (12.0)	0.42 (0.10-1.77)	.23	.003
mRS score of 0-1 at 90 d	0	2 (4.0)	NA	NA	NA
Ordinal shift across the range of mRS toward a better outcome	NA	NA	1.56 (0.79-3.10)	.20	.046

Uchida K et al. JAMA Neurol. 2022 Dec 1;79(12):1260-1266.

Consistent increased intracranial hemorrhage risk

RESCUE-Japan LIMIT
symptomatic hemorrhage within 48h: MT 9% vs med 4.9%, RR 1.84 (0.64-5.29)
any hemorrhage within 48h: 58% vs 31.4%, RR 1.85 (1.33-2.58)

ANGEL-ASPECT
symptomatic hemorrhage within 48h: MT 6.1% vs 2.7%, RR 2.07 (0.79-5.41)
any hemorrhage within 48h: 49.1% vs 17.3%, RR 2.71 (1.91-3.84)

SELECT2
symptomatic hemorrhage within 24h: MT 0.6% vs 1.1%, RR 0.49 (0.04-5.36)

Meta-analysis
symptomatic hemorrhage MT 4.72% vs 2.59%, RR 1.83 (0.95-3.55)

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Li Q et al. Neurology. 2023 Aug 29;101(9):e922-e932.

Early neuro deterioration

SELECT2 reported early neuro decline (nihss incr by at least 4 in 24h)
MT 24.7% vs med 15.5%, RR 1.59 (1.03-2.45)

Early neurologic worsening associated with worse functional outcomes
Associated with larger ischemic core (median 107mL vs 77mL)

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Early neuro deterioration

Not clearly driven by symptomatic hemorrhage

SELECT2: cerebral edema w/ midline shift: MT 34.8% vs med 28.7%
ANGEL-ASPECT: malignant brain edema: MT 17.4% vs med 12.4%

Did not translate into higher hemicraniectomy rates
Combined trial data: MT 8% vs med 7%, RR 1.22 (0.43-3.41)

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Procedural complications

RESCUE-Japan LIMIT: 9% procedural complication rate
ANGEL-ASPECT: only 1% vessel injury rate
SELECT2: 18.5% procedural complication rate

combination of patient and operator factors

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Robust evidence of benefit…but high rate of poor outcome

combined data: 90d mRS 5-6: MT 39% vs med 52%
NNT for mRS 0-2: 7
NNT for mRS 0-3: 6

Medical complications

10-25% rate of pneumonia across 3 trials

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