

Table 1. Pooled rates of each outcome in subjects treated for blister aneurysms. Data from single studies have been combined using proportion meta-analysis (random-effect model).

Outcomes		N. studies (n / N ^A)	Pooled % (95% CI)	I ² , %
Blister location	VA	32 (2 / 707)	0.28 (0.03-1.02) *	--
	ACoA	32 (1 / 707)	0.14 (0.00-0.79) *	--
	ACA	32 (2 / 707)	0.28 (0.03-1.02) *	--
	ICA	32 (687 / 707)	98.7 (96.0-99.9)	54
	MCA	32 (3 / 707)	0.42 (0.09-1.02) *	--
	BA	32 (9 / 707)	0.0 (0.0-0.23)	5
	PCA	32 (3 / 707)	0.42 (0.09-1.02) *	--
	PICA	32 (0 / 707)	--	--
	SCA	32 (0 / 707)	--	--
	AICA	32 (0 / 707)	--	--
Blister mean size	≤5 mm	13 (110 / 143)	86.9 (60.7-100)	91
	6-10 mm	13 (9 / 143)	2.16 (0.0-7.75)	36
	11-15 mm	13 (0 / 143)	--	--
	16-20 mm	13 (0 / 143)	--	--
	≥20 mm	13 (0 / 143)	--	--
Fisher grading	Grade 0	17 (0 / 268)	--	--
	Grade 1	17 (21 / 268)	4.75 (1.51-9.11)	19
	Grade 2	17 (54 / 268)	17.3 (9.09-27.1)	63
	Grade 3	17 (123 / 268)	40.1 (26.9-54.0)	76
	Grade 4	17 (57 / 268)	19.0 (8.41-32.0)	78
Hunt and Hess score at admission	Grade 1	32 (87 / 684)	10.7 (5.51-16.8)	71
	Grade 2	32 (248 / 684)	24.8 (15.8-34.9)	83
	Grade 3	32 (184 / 684)	20.3 (13.2-28.2)	75
	Grade 4	32 (88 / 684)	9.50 (5.75-13.8)	45
	Grade 5	32 (24 / 684)	1.02 (0.15-2.42)	0
Modified Rankin Scale at follow-up	0-2	32 (526 / 684)	76.6 (68.2-84.2)	77
	>2	32 (98 / 684)	7.56 (3.09-13.3)	72
	Death	32 (50 / 684)	4.76 (2.30-7.80)	28
Endovascular treatment	Coiling	32 (6 / 707)	0.85 (0.31-1.37) *	--
	Stenting	32 (282 / 707)	15.9 (1.13-39.1)	97
	Stent assisted coiling	32 (256 / 707)	31.9 (11.4-56.2)	97
	FD	32 (145 / 707)	27.2 (10.2-47.9)	96
	FD + coiling	32 (10 / 707)	0.0 (0.0-0.77)	26
	Glue	32 (3 / 707)	0.42 (0.09-1.23) *	--
	PAO	32 (3 / 707)	0.42 (0.09-1.23) *	--
Complications	Vasospasm	32 (45 / 684)	2.76 (0.14-7.33)	75
	Thrombosis	32 (20 / 684)	0.69 (0.00-2.63)	35
	Haemorrhage	32 (27 / 684)	1.34 (0.31-2.85)	0
	Stroke	32 (29 / 684)	1.38 (0.33-2.90)	0
	Perioperative death	32 (40 / 684)	2.77 (0.93-5.24)	22
Post-operative radiological outcome	Complete	23 (231 / 510)	50.6 (38.2-62.9)	81
	Near complete	23 (116 / 510)	11.6 (5.70-18.7)	66
	Partial	23 (144 / 510)	24.4 (14.8-35.2)	79
	Failed	23 (7 / 510)	0.0 (0.0-1.05)	16
Radiological outcomes at final follow-up	Complete	29 (289 / 401)	76.9 (69.2-83.9)	58
	Near complete	29 (19 / 401)	1.58 (0.17-3.89)	8
	Partial	29 (14 / 401)	1.05 (0.03-2.97)	0
	Failed	29 (23 / 401)	2.32 (0.41-5.22)	23

Legend: ^A Number of subjects with the outcome / Total number of subjects, CI = Confidence Interval, * Raw proportions, VA=vertebral artery, ACoA= anterior communicating artery, ACA=anterior cerebral artery, ICA=internal carotid artery, MCA=middle cerebral artery, BA=basilar artery, PCA=posterior cerebral artery, PICA=posterior inferior cerebellar artery, SCA=superior cerebellar artery, AICA= anterior inferior cerebellar artery, FD= flow diverter, PAO=parent artery occlusion.

Table 2. Pooled rates of each outcome by type of endovascular treatment. Data from single studies have been combined using proportion meta-analysis (random-effect model).

Outcomes		Stenting			Stent assisted coiling			FD (with or without coiling)		
		N. studies (n / N ^A)	Pooled % (95% CI)	I ² , %	N. studies (n / N ^A)	Pooled % (95% CI)	I ² , %	N. studies (n / N ^A)	Pooled % (95% CI)	I ² , %
Blister location	VA	--	--	--	--	--	--	--	--	--
	ACoA	--	--	--	--	--	--	11 (1 / 147)	0.68 (0.02-3.73) *	--
	ACA	--	--	--	--	--	--	11 (2 / 147)	0.0 (0.0-1.95)	0.0
	ICA	4 (249 / 249)	100 (100-100)	0.0	7 (179 / 180)	100 (99.8-100)	0.0	11 (135 / 147)	93.4 (82.7-99.7)	65
	MCA	--	--	--	--	--	--	11 (3 / 147)	0.0 (0.0-2.22)	0.0
	BA	--	--	--	7 (1 / 180)	0.56 (0.01-3.06) *	--	11 (4 / 147)	0.28 (0.0-3.10)	0.77
	PCA	--	--	--	--	--	--	11 (2 / 147)	0.0 (0.0-1.95)	0.0
	PICA	--	--	--	--	--	--	--	--	--
	SCA	--	--	--	--	--	--	--	--	--
	AICA	--	--	--	--	--	--	--	--	--
Modified Rankin Scale at follow-up	0-2	7 (209 / 259)	94.8 (82.0-100)	43	7 (140 / 169)	85.0 (78.4-90.7)	0	14 (103 / 147)	76.5 (57.5-91.9)	76
	>2	4 (45 / 246)	3.75 (0.0-20.3)	78	6 (12 / 119)	7.03 (1.99-13.9)	5	14 (30 / 146)	11.6 (0.46-29.7)	78
	Death	6 (15 / 258)	1.57 (0.0-10.6)	43	7 (12 / 169)	3.66 (0.0-11.8)	57	15 (14 / 148)	4.36 (0.62-10.2)	0
Complications	Vasospasm	7 (0 / 259)	0.0 (0.0-0.0)	0	7 (33 / 169)	10.6 (0.63-26.8)	80	11 (3 / 139)	0.13 (0.0-2.76)	0
	Thrombosis	7 (3 / 259)	0.0 (0.0-4.95)	58	7 (11 / 169)	2.20 (0.0-9.31)	55	11 (6 / 139)	1.81 (0.0-5.98)	0
	Haemorrhage	7 (12 / 259)	0.0 (0.0-0.30)	0	7 (6 / 169)	0.61 (0.0-5.35)	42	11 (3 / 139)	0.63 (0.0-3.97)	0
	Stroke	7 (15 / 259)	0.0 (0.0-2.0)	21	7 (9 / 169)	1.54 (0.0-6.25)	27	11 (5 / 139)	1.07 (0.0-5.49)	18
	Peri-operative death	7 (10 / 259)	0.0 (0.0-0.04)	0	7 (10 / 169)	2.12 (0.0-10.0)	62	11 (12 / 139)	5.18 (1.21-10.8)	4
Post-operative radiological outcome	Complete	6 (107 / 261)	42.0 (15.1-71.0)	83	6 (65 / 121)	63.4 (34.3-88.6)	87	10 (37 / 74)	53.7 (25.0-81.4)	79
	Near complete	4 (68 / 249)	16.8 (4.08-34.3)	68	6 (32 / 121)	17.1 (3.31-36.3)	74	8 (3 / 69)	1.59 (0.0-8.16)	0
	Partial	6 (84 / 261)	41.2 (13.8-71.1)	84	6 (22 / 121)	13.7 (3.18-28.2)	60	9 (27 / 70)	31.7 (4.78-65.6)	83
	Failed	5 (2 / 260)	0.20 (0.0-6.35)	57	6 (0 / 121)	0.0 (0.0-0.30)	0	7 (1 / 66)	0.25 (0.0-5.14)	0
Radiological outcomes at final follow-up	Complete	6 (32 / 49)	77.1 (34.8-100)	79	6 (91 / 121)	80.3 (67.5-90.9)	43	15 (108 / 156)	75.6 (63.5-86.3)	39
	Near complete	4 (6 / 47)	8.52 (0.0-29.6)	67	6 (10 / 121)	2.97 (0.0-10.7)	38	11 (2 / 147)	0.01 (0.0-2.04)	0
	Partial	3 (4 / 36)	9.02 (0.0-31.2)	59	6 (3 / 121)	0.05 (0.0-3.15)	10	11 (3 / 147)	0.44 (0.0-3.46)	0
	Failed	4 (2 / 47)	1.63 (0.0-10.9)	24	6 (8 / 121)	0.92 (0.0-10.6)	67	12 (5 / 149)	0.53 (0.0-3.80)	0

Legend: A = Number of subjects with the outcome / Total number of subjects, CI = Confidence Interval, * = Raw proportions, VA=vertebral artery, ACoA= anterior communicating artery, ACA=anterior cerebral artery, ICA=internal carotid artery, MCA=middle cerebral artery, BA=basilar artery, PCA=posterior cerebral artery, PICA=posterior inferior cerebellar artery, SCA=superior cerebellar artery, AICA=anterior inferior cerebellar artery, FD= flow diverter, PAO=parent artery occlusion.