

**Supplementary Table 2. Demographics of the included studies**

Study	Age		Sex (%)		Initial presentation/events (%)				Associated		Drainage			Location		Size			Spetzler–Martin Grade				
	Mean	SD	Male	Female	Hemo-rrhage	Seizure	Head-ache	Other	aneurysms (%)	Super-ficial (%)	Deep (%)	Supratentorial, lobar (%)	Thalamus or basal ganglia (%)	Cerebellum (%)	<3 (%)	3–6 (%)	>6 (%)	I (%)	II (%)	III (%)	IV (%)	V (%)	
Al-Shahi Saliman (2014; Scotland) <sup>51</sup>	46.9	15.7	121 (59.3)	83 (40.7)	N/A	85 (41.7)	N/A	18 (8.8)	46 (22.5)	99 (48.5)	10 (4.9)	187 (91.7)	10 (4.9)	4 (2.0)	3 (1.5)	95 (46.6)	79 (38.7)	8 (3.9)	30 (14.7)	51 (25.0)	41 (20.1)	18 (8.8)	2 (1.0)
Bervini (2014; Australia) <sup>52</sup>	37.4	15.6	198 (52.5)	179 (47.5)	N/A	196 (52.0)	N/A	63 (16.7)	119 (31.6)	N/A	42 (11.1)	354 (93.9)	N/A	N/A	N/A	126 (33.4)	217 (57.6)	34 (9.0)	N/A	N/A	N/A	N/A	N/A
Ding (2016; USA) <sup>4</sup>	39.7	13.7	238 (46.8)	271 (53.2)	N/A	103 (20.2)	86 (16.9)	90 (9.0)	50 (9.8)	N/A	350 (68.8)	226 (44.4)	134 (26.3)	60 (11.8)	48 (9.4)	N/A	N/A	N/A	49 (9.6)	183 (36.0)	245 (48.1)	32 (6.3)	N/A
Ding (2017; USA, Canada) <sup>35</sup>	41.8	14.2	111 (47.8)	121 (52.2)	N/A	49 (21.1)	41 (17.7)	99 (9.9)	25 (10.8)	N/A	85 (36.6)	142 (61.2)	15 (6.5)	13 (5.6)	35 (15.1)	N/A	N/A	N/A	49 (21.1)	183 (78.9)	N/A	N/A	N/A
Halim (2004; USA) <sup>53</sup>	37	20	382 (49)	390 (51)	367 (46.3)	190 (24)	114 (14)	119 (15)	N/A	N/A	89 (20)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hanakita (2016; Japan) <sup>54</sup>	N/A	N/A	187 (64)	105 (36)	N/A	177 (40)	54 (18)	32 (11)	N/A	N/A	N/A	245 (83.9)	17 (5.8)	8 (2.7)	11 (3.8)	N/A	N/A	N/A	84 (29)	115 (39)	69 (24)	15 (5)	N/A
Javadpour (2016; UK) <sup>17</sup>	39	13	16 (47)	18 (53)	N/A	23 (68)	7 (21)	N/A	N/A	N/A	8 (23)	N/A	N/A	N/A	N/A	23 (68)	N/A	N/A	8 (23)	16 (47)	8 (23)	2 (6)	N/A
Jiao (2018; China) <sup>55</sup>	28.8	12.9	127 (63.2)	74 (36.8)	48 (23.9)	N/A	N/A	N/A	N/A	178 (88.6)	23 (11.4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kim (2014; USA, Scotland) <sup>5</sup>	37.2	17.8	2,502 (50)	2,548 (50)	2,272 (45)	N/A	N/A	N/A	864 (17)	N/A	736 (15)	2,442 (48)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Koltz (2013; USA) <sup>56</sup>	38	N/A	44 (43)	58 (57)	41 (40)	21 (21)	18 (18)	4 (4)	N/A	N/A	N/A	N/A	N/A	4 (4)	4 (4)	54 (53)	N/A	N/A	5 (5)	28 (27)	43 (42)	22 (21)	4 (4)
Laakso (2011; Finland) <sup>57</sup>	32.1	16.8	40 (63)	23 (37)	32 (40)	N/A	3 (5)	25 (40)	N/A	N/A	24 (38)	N/A	N/A	N/A	N/A	N/A	N/A	29 (46)	N/A	N/A	N/A	50 (79)	13 (21)
Lang (2018; USA) <sup>58</sup>	43	13	43 (41)	62 (59)	N/A	35 (33)	57 (54)	45 (43)	N/A	65 (62)	40 (38)	71 (68)	17 (16)	2 (2)	14 (13)	55 (52)	48 (46)	2 (2)	15 (14)	31 (30)	35 (33)	23 (22)	1 (1)
Link (2018; USA) <sup>13</sup>	43.6	14.6	45 (52.3)	41 (47.7)	N/A	35 (40.7)	44 (51.2)	51.2 (51.2)	15 (17.4)	N/A	23 (26.7)	N/A	N/A	N/A	6 (7)	52 (61.9)	31 (36.9)	1 (1.2)	16 (18.6)	35 (40.7)	29 (33.7)	6 (7)	N/A
Lv (2010; China) <sup>59</sup>	27.9	12	92 (63.9)	52 (36.1)	62 (43.1)	45 (29.2)	25 (17.4)	12 (8.3)	N/A	N/A	25 (17.4)	134 (90.3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lv (2012; China) <sup>29</sup>	27.5	11.1	87 (59.2)	60 (40.8)	69 (46.9)	N/A	N/A	N/A	14 (9.5)	N/A	48 (32.6)	135 (91.8)	N/A	N/A	N/A	N/A	N/A	N/A	5 (3.4)	19 (12.9)	53 (36.1)	47 (32)	23 (15.6)

**Supplementary Table 2. Continued**

Study	Age		Sex (%)		Initial presentation/events (%)				Associated aneurysms (%)		Drainage			Location			Size			Spetzler–Martin Grade			
	Mean	SD	Male	Female	Hemorrhage	Seizure	Headache	Other	Superficial	Deep	Supratentorial/lobar	Thalamus or basal ganglia	Brain stem	Cerebellum	<3 (%)	3–6 (%)	>6 (%)	I (%)	II (%)	III (%)	IV (%)	V (%)	
Mohr (2014; Germany) <sup>8</sup>	44.5	12.3	131 (59)	92 (41)	N/A	95 (43)	115 (52)	42 (19)	147 (66)	74 (33)	203 (91)	N/A	N/A	N/A	138 (62)	N/A	N/A	65 (29)	71 (32)	62 (28)	23 (10)	N/A	
Nerva (2015; USA) <sup>10</sup>	40	15	32 (52)	29 (48)	N/A	24 (39)	27 (44)	12 (20)	36 (59)	25 (41)	54 (89)	N/A	N/A	4 (7)	N/A	N/A	6 (10)	25 (41)	0 (33)	7 (12)	3 (5)		
Nerva (2018; USA) <sup>11</sup>	37	18.9	42 (60)	28 (40)	29 (41)	N/A	N/A	N/A	30 (43)	40 (53)	48 (69)	N/A	N/A	7 (10)	36 (51)	5 (7)	5 (7)	21 (30)	23 (33)	17 (24)	4 (6)		
Pollock (2013; USA) <sup>15</sup>	N/A	N/A	80 (45.9)	94 (54)	N/A	70 (40.2)	77 (44.3)	N/A	100 (57.5)	74 (42.5)	151 (86.8)	8 (4.6)	2 (1.1)	8 (4.6)	101 (58.1)	72 (41.4)	1 (0.6)	N/A	N/A	55 (31.6)	N/A	N/A	
Potts (2015; USA) <sup>28</sup>	38.1	17	101 (44)	131 (56)	120 (52)	37 (16)	40 (17)	35 (15)	N/A	N/A	180 (78)	N/A	1 (<1)	35 (15)	N/A	N/A	N/A	76 (33)	156 (67)	N/A	N/A	N/A	
Rutledge (2014; USA) <sup>11</sup>	44.2	N/A	42 (57)	32 (43)	N/A	32 (43)	23 (31)	19 (26)	49 (66)	24 (32)	N/A	N/A	N/A	N/A	30 (41)	39 (53)	4 (5)	10 (14)	26 (35)	24 (32)	10 (14)	3 (4)	
Singfer (2017; Belgium) <sup>51</sup>	38	11	32 (53)	29 (47)	N/A	25 (41)	19 (31)	5 (8)	N/A	20 (33)	52 (85)	N/A	N/A	N/A	26 (43)	N/A	N/A	11 (18)	20 (33)	21 (34)	8 (13)	1 (2)	
Thenier-Villa (2017; Spain) <sup>52</sup>	37.64	15.17	110 (56.4)	85 (43.6)	87 (44.62)	47 (24.10)	17 (8.72)	9 (4.62)	113 (57.9)	82 (42.1)	123 (63)	20 (10)	10 (5)	12 (6)	N/A	N/A	N/A	30 (15.39)	57 (29.23)	78 (40)	26 (13.33)	4 (2.05)	
Yang (2009; South Korea) <sup>53</sup>	32.3	13	27 (59)	19 (41)	17 (37)	16 (35)	7 (15)	2 (4)	N/A	27 (59)	N/A	N/A	N/A	N/A	N/A	32 (70)	14 (30)	N/A	N/A	6 (13)	27 (59)	13 (28)	
Yang (2012; South Korea) <sup>54</sup>	34.5	12.6	48 (42)	30 (38)	N/A	78 (100)	N/A	N/A	N/A	N/A	58 (74)	N/A	N/A	N/A	N/A	N/A	N/A	15 (19)	28 (36)	26 (33)	7 (9)	2 (3)	

SD, standard deviation; N/A, not applicable.