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Supplemental material

Assessment of the endoscopic endonasal approach to the basilar apex region for aneurysm clipping

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Supplemental Table 1. Analysis of EEA for different cutoff points defined for BAX height.

Cutoff point for BAX height (mm)	PCA exposure ^{*,#}		PCA Clipping		SCA Exposure		SCA Clipping		PCA perforators		Proximal Basilar Exposure/Clipping		Surgical Area of Exposure	
	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff
-5	11.0 ± 4.4	7.7 ± 4.6	6.2 ± 3.0	4.4 ± 3.8	9.1 ± 2.2	6.9 ± 4.1	6.8 ± 2.4	4.4 ± 2.9	4.6 ± 2.8	1.9 ± 1.7	17.7 ± 3.0	17.9 ± 4.3	3.3 ± 0.7	2.8 ± 0.9
p-value	0.04[†]		0.11		0.08		0.04		0.001		0.46		0.19	
-4, -3 [‡]	10.7 ± 3.8	6.2 ± 4.6	6.3 ± 3.4	3.2 ± 3.1	9.7 ± 2.4	4.9 ± 3.7	6.2 ± 1.9	3.7 ± 3.2	3.8 ± 2.4	1.4 ± 1.5	17.9 ± 2.4	17.4 ± 5.3	3.3 ± 0.5	2.5 ± 1.0
p-value	0.003		0.01		<0.001		0.01		0.001		0.41		0.04	
-2, -1, 0, +1 [†]	10.4 ± 3.7	5.9 ± 5.0	6.3 ± 3.2	2.7 ± 3.0	9.3 ± 2.4	4.7 ± 3.9	6.1 ± 1.8	3.4 ± 3.4	3.7 ± 2.3	1.1 ± 1.4	17.3 ± 2.9	18.3 ± 5.3	3.1 ± 0.7	2.7 ± 1.0
p-value	0.004		0.002		<0.001		0.01		<0.001		0.25		0.17	
+2	9.3 ± 4.8	7.1 ± 6.4	5.7 ± 3.6	3.2 ± 3.0	8.4 ± 3.7	5.6 ± 3.6	5.4 ± 2.6	4.1 ± 3.3	3.3 ± 2.4	1.3 ± 1.4	17.6 ± 2.9	17.9 ± 5.9	3.1 ± 0.7	2.7 ± 1.2
p-value	0.12		0.04		0.03		0.12		0.01		0.43		0.25	
+3	8.6 ± 4.9	6.4 ± 4.9	5.4 ± 3.6	2.5 ± 2.7	7.7 ± 4.0	4.8 ± 3.5	5.2 ± 2.9	3.3 ± 3.2	2.9 ± 2.3	0.8 ± 1.0	17.3 ± 3.5	16.8 ± 6.1	3.1 ± 0.8	2.2 ± 0.4
p-value	0.13		0.02		0.04		0.07		0.008		0.42		0.04	

* all values are represented as mean ± standard deviation.

#Exposure and clipping lengths are represented in millimeters; areas are represented in cm².

† Bold-italic figures show statistically significant p-values.

‡ With these cutoff points the groups, did not differ which is due to small sample size.

BA = basilar artery; BAX = basilar apex; EEA = endoscopic endonasal approach; PCA = posterior cerebral artery; SCA = superior cerebellar artery.

Supplemental Table 2. Analysis of EEA + PT for different cutoff points defined for BAX height.

Cutoff point for BAX height (mm)	PCA exposure ^{*,#}		PCA Clipping		SCA Exposure		SCA Clipping		PCA perforators		Proximal BA Exposure/Clipping		Surgical Area of Exposure	
	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff	≤ cutoff	> cutoff
-5	12.9 ± 3.9	11.3 ± 3.0	9.2 ± 3.6	9.3 ± 2.9	9.7 ± 2.6	8.8 ± 2.3	7.7 ± 2.1	5.9 ± 1.8	5.4 ± 3.1	3.5 ± 1.6	17.2 ± 2.8	18.6 ± 4.0	4.2 ± 0.9	3.7 ± 1.2
p-value	0.12		0.46		0.17		0.02[‡]		0.02		0.26		0.26	
-4, -3 [†]	12.7 ± 3.5	10.6 ± 2.8	9.6 ± 3.3	8.9 ± 2.8	10.0 ± 2.5	7.9 ± 1.7	6.9 ± 2.1	5.6 ± 1.6	4.8 ± 2.5	3.1 ± 1.3	17.9 ± 2.4	18.3 ± 5.0	4.0 ± 0.7	3.7 ± 1.5
p-value	0.03		0.28		0.007		0.03		0.02		0.36		0.31	
-2, -1, 0, +1 [†]	12.2 ± 3.7	11.0 ± 2.7	9.3 ± 3.2	9.2 ± 2.9	9.6 ± 2.6	8.2 ± 1.7	6.7 ± 2.1	5.6 ± 1.7	4.6 ± 2.5	3.0 ± 1.2	17.3 ± 2.9	19.7 ± 4.5	3.8 ± 0.7	3.8 ± 1.6
p-value	0.18		0.46		0.051		0.08		0.09		0.04		0.48	
+2	12.0 ± 3.5	11.1 ± 2.9	9.0 ± 3.1	9.7 ± 3.0	9.4 ± 2.6	8.3 ± 2.1	6.4 ± 2.1	5.9 ± 1.7	4.5 ± 2.4	3.0 ± 1.2	17.9 ± 3.3	19.0 ± 4.7	3.9 ± 0.7	3.8 ± 1.8
p-value	0.22		0.30		0.11		0.25		0.16		0.22		0.44	
+3	12.0 ± 3.3	9.9 ± 3.2	9.4 ± 3.1	8.7 ± 3.3	9.1 ± 2.4	8.1 ± 1.7	6.5 ± 2.0	5.0 ± 1.3	4.1 ± 2.3	3.0 ± 1.4	17.9 ± 3.3	20.3 ± 7.4	3.9 ± 1.2	3.6 ± 0.5
p-value	0.12		0.34		0.21		0.07		0.11		0.12		0.38	

* All values are represented as mean ± standard deviation.

#Exposure and clipping lengths are represented in millimeters; areas are represented in cm²

†With these cutoff points the groups did not differ, which is due to small sample size.

‡Bold-italic figures show statistically significant p-values.

BA = basilar artery; BAX = basilar apex; EEA = endoscopic endonasal approach; PCA = posterior cerebral artery; PT = pituitary transposition; SCA = superior cerebellar artery.