

APPENDIX

Data of all variable assessments.

Position NO.	1	2	3	4	5	6	7	8	9
1	9.26	5.2	8.02	12.09	12.77	11.41	7.23	8.93	3.39
2	10.06	13.33	4.75	10.8	11.52	12.77	15.37	9.94	3.39
3	13.9	22.71	6.78	13.6	27.12	13.78	3.62	4.18	7.6
4	14.46	7.68	5.54	23.1	20.6	12.8	7.57	9.72	3.6
5	5.3	5.6	7.34	2.7	11.6	6.5	9.94	5.54	7.12
6	2.3	3.9	2.4	5.3	13.9	11.9	6.89	11.9	6
7	3.9	9.7	7.2	16.9	16.9	12.7	2.3	1.3	7.9
8	9.9	3.5	4.2	21.5	14.2	10.3	8.8	3.1	3.62
9	8.2	4	2.5	9.7	7.9	4.3	6.7	5.9	3.4
10	3.2	8.5	4.8	4.7	3.8	3.5	6.6	5.3	3.5
11	4.6	1.3	4.2	6.4	3.8	2.8	6.9	9.34	3.2
12	3	5.6	4.9	5.7	5.6	6.2	5.1	5.7	5.6
13	1.5	1.4	2.2	3.6	3.8	5	6.1	1.8	2.6
14	2.5	8.3	7.3	2.5	3.62	11.2	2.2	3.9	2.9
15	18.1	11.52	8.7	12	9.9	17.8	11	14.57	15.25
16	8.1	9.6	3.9	12.9	9.4	12.7	0	9.5	2.6
17	5.5	4	3.8	4.29	8	12.1	5.3	2.3	3.6
18	1.7	2.6	4	5.8	3.9	11.7	5.1	1.7	0
19	6.1	6.7	5.5	3.3	5.6	6	5.1	11.8	13.7
20	4.4	17.6	15.5	7	8.6	12.7	5.6	13.5	7.4

Statistic

Case Processing Summary

groupRL	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
NCm Anterior paramedian	40	100.0%	0	.0%	40	100.0%
Middle paramedian	40	100.0%	0	.0%	40	100.0%
Posterior paramedian	40	100.0%	0	.0%	40	100.0%
Anterior midpalatal	20	100.0%	0	.0%	20	100.0%
Middle midpalatal	20	100.0%	0	.0%	20	100.0%
Posterior midpalatal	20	100.0%	0	.0%	20	100.0%

Tests of Normality

groupRL	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
NCm Anterior paramedian	.119	40	.164	.937	40	.027
Middle paramedian	.141	40	.043	.921	40	.008
Posterior paramedian	.151	40	.022	.844	40	.000
Anterior midpalatal	.191	20	.055	.887	20	.024
Middle midpalatal	.149	20	.200(*)	.888	20	.025
Posterior midpalatal	.223	20	.010	.899	20	.040

* This is a lower bound of the true significance.

a. Lilliefors Significance Correction

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Kruskal-Wallis Test

Ranks

Group	N	Mean Rank
NCm Anterior parasagittal	40	62.55
Middle parasagittal	40	66.46
Posterior parasagittal	40	52.49
Total	120	

Test Statistics^{a,b}

	NCm
Chi-Square	3.437
df	2
Asymp. Sig.	.179

a. Kruskal Wallis Test

b. Grouping Variable: antero-posterior parasagittal

Ranks

Group	N	Mean Rank
NCm Anterior midpalatal	20	27.83
Middle midpalatal	20	30.85
Posterior midpalatal	20	32.83
Total	60	

Test Statistics^{a,b}

	NCm
Chi-Square	.832
df	2
Asymp. Sig.	.660

a. Kruskal Wallis Test

b. Grouping Variable: antero-posterior midpalatal

Mann-Whitney Test

Ranks

Parasagittal vs Midpalatal	N	Mean Rank	Sum of Ranks
NCm Parasagittal	120	79.48	9538.00
Midpalatal	60	112.53	6752.00
Total	180		

Test Statistics^a

	NCm
Mann-Whitney U	2278.00
Wilcoxon W	9538.00
Z	-4.012
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: parasagittal VS midpalatal

Ranks

Group	N	Mean Rank	Sum of Ranks
NCm Anterior parasagittal	40	28.24	1129.50
Anterior midpalatal	20	35.03	700.50
Total	60		

Test Statistics^a

	NCm
Mann-Whitney U	309.500
Wilcoxon W	1129.50
Z	-1.419
Asymp. Sig. (2-tailed)	.156

a. Grouping Variable: anterior

Ranks

Group	N	Mean Rank	Sum of Ranks
NCm Middle parasagittal	40	27.94	1117.50
Middle midpalatal	20	35.63	712.50
Total	60		

Test Statistics^a

	NCm
Mann-Whitney U	297.500
Wilcoxon W	1117.50
Z	-1.608
Asymp. Sig. (2-tailed)	.108

a. Grouping Variable: middle

Ranks

Group	N	Mean Rank	Sum of Ranks
NCm Posterior parasagittal	40	24.85	994.00
Posterior midpalatal	20	41.80	836.00
Total	60		

Test Statistics^a

	NCm
Mann-Whitney U	174.000
Wilcoxon W	994.000
Z	-3.544
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: posterior

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