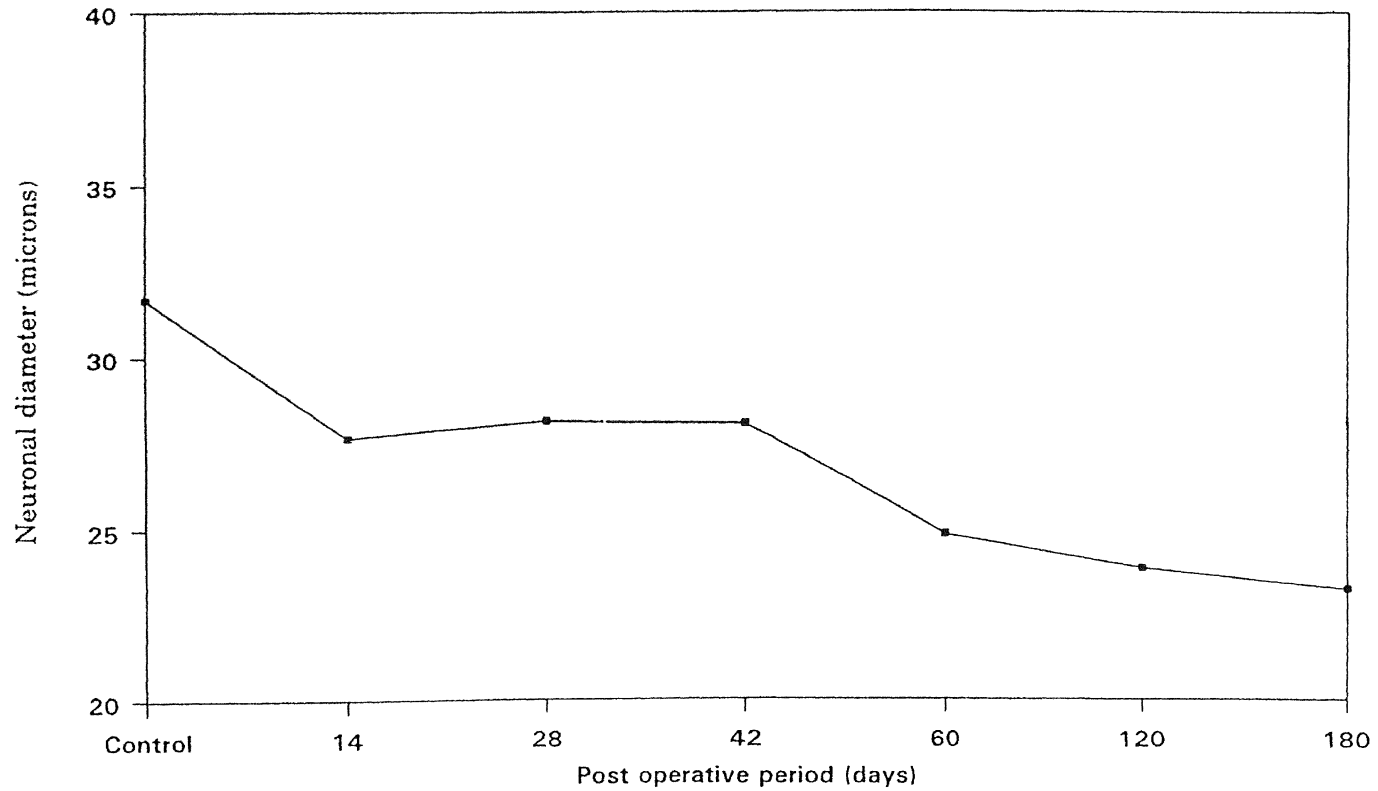


APPENDIX

1 • AVERAGE NEURONAL DIAMETER OF THE
FACIAL NUCLEUS AT VARIOUS POST
NERVE TRANSECTION PERIODS



2 • Average number counts of neurons within the ipsilateral facial nucleus after facial nerve transection

Subdivision	Level	Post operative period in days					
		14	28	42	60	120	180
Dorsal	Cranial	9.4 ± 1.0	8.8 ± 1.7	7.8 ± 1.5	8.0 ± 0.6	7.0 ± 0.9	5.4 ± 1.0
	Middle	9.6 ± 1.4	9.2 ± 3.4	8.0 ± 1.4	6.6 ± 0.8	8.8 ± 1.5	6.4 ± 1.6
	Caudal	7.0 ± 0.6	6.6 ± 2.0	6.4 ± 0.5	6.8 ± 0.7	6.0 ± 1.4	4.4 ± 1.5
Dorsolateral	Cranial	9.6 ± 2.2	9.8 ± 1.3	8.8 ± 1.5	9.0 ± 0.6	8.2 ± 1.3	6.4 ± 0.5
	Middle	9.2 ± 1.3	9.6 ± 2.1	8.6 ± 1.0	7.0 ± 1.4	6.8 ± 1.2	4.6 ± 0.5
	Caudal	8.6 ± 1.0	9.8 ± 1.8	8.2 ± 0.9	6.8 ± 1.7	5.8 ± 1.3	4.6 ± 1.0
Intermediate	Cranial	8.4 ± 1.6	9.8 ± 3.0	8.2 ± 1.3	9.8 ± 0.7	7.6 ± 1.0	5.0 ± 0.9
	Middle	7.2 ± 4.0	12.0 ± 1.4	8.2 ± 1.2	7.6 ± 1.0	7.6 ± 1.0	5.8 ± 0.7
	Caudal	8.4 ± 1.0	7.2 ± 1.7	7.6 ± 0.8	7.4 ± 1.0	6.6 ± 1.7	4.6 ± 1.0
Ventral	Cranial	11.8 ± 2.3	12.0 ± 1.4	10.6 ± 1.5	9.4 ± 0.8	9.8 ± 0.7	7.8 ± 1.9
	Middle	11.0 ± 1.4	13.2 ± 1.7	9.8 ± 1.2	9.0 ± 0.6	8.8 ± 1.2	7.0 ± 1.9
	Caudal	9.6 ± 1.0	13.4 ± 1.9	9.2 ± 0.7	8.0 ± 1.4	7.8 ± 1.6	7.8 ± 1.7
Ventromedial	Cranial	9.8 ± 2.3	7.4 ± 1.9	9.6 ± 2.1	9.6 ± 2.1	9.2 ± 2.8	8.6 ± 2.0
	Middle	10.8 ± 2.8	8.0 ± 1.4	10.2 ± 2.1	6.8 ± 1.7	7.6 ± 1.9	5.6 ± 1.6
	Caudal	7.4 ± 1.6	11.0 ± 0.9	7.4 ± 1.6	9.6 ± 1.0	6.0 ± 2.1	5.0 ± 0.6

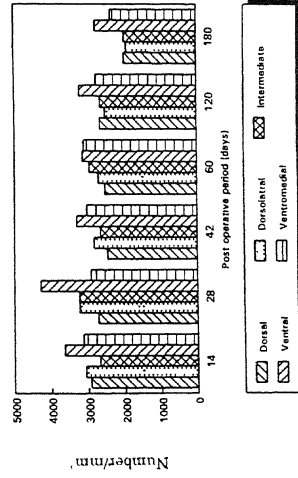
3 - Morphometric calculation of neuronal density within the facial nucleus after facial nerve transection

Subdivision	Post operative period in days													
	Control		14		28		42		60		120		180	
	Average number counts	Calculated number/mm ³	Average number counts	Calculated number/mm ³	Average number counts	Calculated number/mm ³	Average number counts	Calculated number/mm ³	Average number counts	Calculated number/mm ³	Average number counts	Calculated number/mm ³	Average number counts	Calculated number/mm ³
Dorsal	9.9	3055*	8.7	2924	8.2	2728 ^b	7.4	2467 ^b	7.1	2536 ^b	7.3	2667 ^b	5.4	2000 ^f
Dorsolateral	9.3	2869*	9.1	3059*	9.7	3227*	8.5	2833 ^{a,b}	7.6	2717 ^{b,c}	6.9	2521 ^c	5.2	1926 ^d
Intermediate	9.5	2941*	8.0	2689**	9.7	3227*	8.0	2667 ^b	8.3	2964 ^{a,b}	7.3	2667 ^b	5.1	1889 ^f
Ventral	12.5	3880*	10.8	3630 ^{a,c}	12.9	4291 ^{a,b}	9.9	3300 ^c	8.8	3143 ^{c,d}	8.8	3215 ^{c,d}	7.5	2778 ^d
Ventromedial	11.1	3426*	9.3	3126 ^{a,b}	8.8	2927 ^{a,b,c}	9.1	3033 ^{a,b}	8.7	3107 ^{b,c}	7.6	2776 ^{b,c}	6.4	2370 ^f

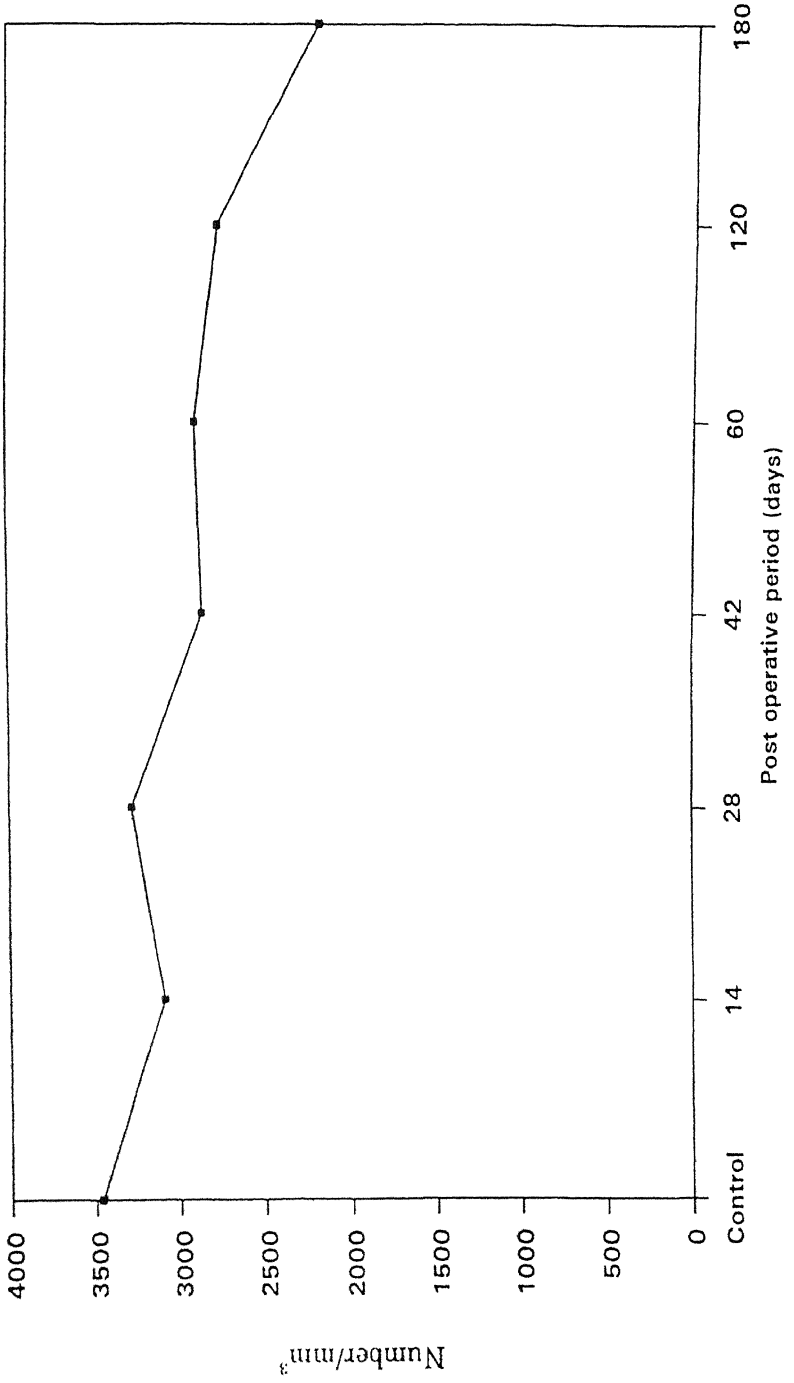
** - F, P < 0.01 Highly significant

a,b,c,d - Mean values followed by the same superscript do not deviate significantly.

NEURONAL DENSITY AMONG THE SUB DIVISIONS OF FACIAL NUCLEUS AFTER FACIAL NERVE TRANSECTION IN BONNET MONKEY



4 • NEURONAL DENSITY OF THE FACIAL NUCLEUS IN THE NORMAL AND NERVE TRANSECTED BONNET MONKEYS



5. Average point counts of neurons within the ipsilateral facial nucleus after facial nerve transection

Subdivision	Level	Post operative period in days					
		14	28	42	60	120	180
Dorsal	Cranial	11.2 ± 1.2	10.4 ± 1.0	10.0 ± 1.4	5.2 ± 1.3	8.2 ± 2.3	7.2 ± 1.2
	Middle	14.4 ± 1.4	10.4 ± 1.0	8.4 ± 1.4	5.6 ± 1.0	11.2 ± 1.6	5.8 ± 0.7
	Caudal	10.6 ± 0.5	10.6 ± 1.0	10.6 ± 1.0	5.8 ± 1.7	8.0 ± 2.1	7.0 ± 1.4
Dorsolateral	Cranial	13.6 ± 1.0	8.6 ± 1.0	7.0 ± 1.4	5.2 ± 0.7	7.2 ± 1.2	6.0 ± 1.4
	Middle	12.4 ± 1.0	8.4 ± 1.0	7.2 ± 1.2	5.4 ± 1.0	5.6 ± 1.0	4.4 ± 1.0
	Caudal	8.8 ± 1.2	9.0 ± 1.1	6.8 ± 1.0	5.6 ± 1.0	7.0 ± 1.4	6.2 ± 2.0
Intermediate	Cranial	12.0 ± 1.4	10.4 ± 1.0	9.4 ± 1.0	10.6 ± 2.4	10.0 ± 1.4	5.4 ± 1.0
	Middle	13.2 ± 1.9	10.2 ± 1.7	9.8 ± 1.5	6.8 ± 1.5	7.2 ± 2.6	8.4 ± 1.9
	Caudal	9.4 ± 0.8	8.6 ± 1.6	8.8 ± 1.7	8.2 ± 1.2	5.2 ± 1.7	7.2 ± 1.2
Ventral	Cranial	15.0 ± 1.4	11.0 ± 1.4	10.6 ± 1.0	10.0 ± 1.4	12.6 ± 2.1	9.6 ± 1.0
	Middle	16.6 ± 1.9	10.0 ± 1.4	10.4 ± 1.4	11.2 ± 1.7	13.0 ± 1.4	8.0 ± 1.4
	Caudal	12.2 ± 1.0	10.4 ± 1.9	10.2 ± 1.2	13.2 ± 1.6	9.6 ± 1.6	6.2 ± 0.7
Ventromedial	Cranial	10.0 ± 1.4	6.0 ± 1.4	12.4 ± 1.0	9.0 ± 1.4	8.0 ± 1.4	6.0 ± 1.4
	Middle	5.6 ± 1.0	5.0 ± 0.9	10.8 ± 1.3	8.0 ± 1.1	7.6 ± 1.9	6.4 ± 1.0
	Caudal	8.4 ± 0.8	9.4 ± 1.0	11.8 ± 1.3	8.0 ± 1.4	11.6 ± 1.0	7.6 ± 1.0

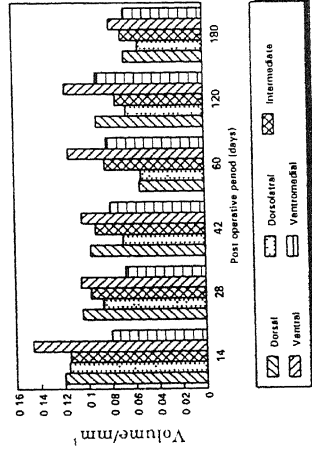
6. Morphometric calculation of neuronal volume within the facial nucleus after facial nerve transection

Subdivision	Post operative period in days													
	Control		14		28		42		60		120		180	
	Average point counts	Calculated volume /mm ³	Average point counts	Calculated volume /mm ³	Average point counts	Calculated volume /mm ³	Average point counts	Calculated volume /mm ³	Average point counts	Calculated volume /mm ³	Average point counts	Calculated volume /mm ³	Average point counts	Calculated volume /mm ³
Dorsal**	9.3	0.093 ^b	12.07	0.120 ^c	10.47	0.104 ^d	9.67	0.097 ^h	5.53	0.055 ⁱ	9.13	0.091 ^h	6.67	0.067 ⁱ
Dorsolateral**	9.3	0.093 ^b	11.60	0.116 ^c	8.67	0.087 ^h	7.00	0.070 ⁱ	5.40	0.054 ^d	6.60	0.066 ^{c,d}	5.54	0.055 ^d
Intermediate**	9.4	0.094 ^b	11.53	0.115 ^c	9.73	0.097 ^b	9.33	0.093 ^b	8.53	0.085 ^{b,c}	7.47	0.075 ^{b,c}	7.00	0.070 ^c
Ventral**	10.8	0.108 ^b	14.60	0.146 ^e	10.47	0.105 ^b	10.40	0.104 ^b	11.47	0.115 ^b	11.73	0.117 ^b	7.93	0.079 ^c
Ventromedial**	7.9	0.079 ^b	8.00	0.08 ^f	6.8	0.068 ^h	8.00	0.080 ^b	8.33	0.083 ^b	9.07	0.091 ^g	6.67	0.067 ^b

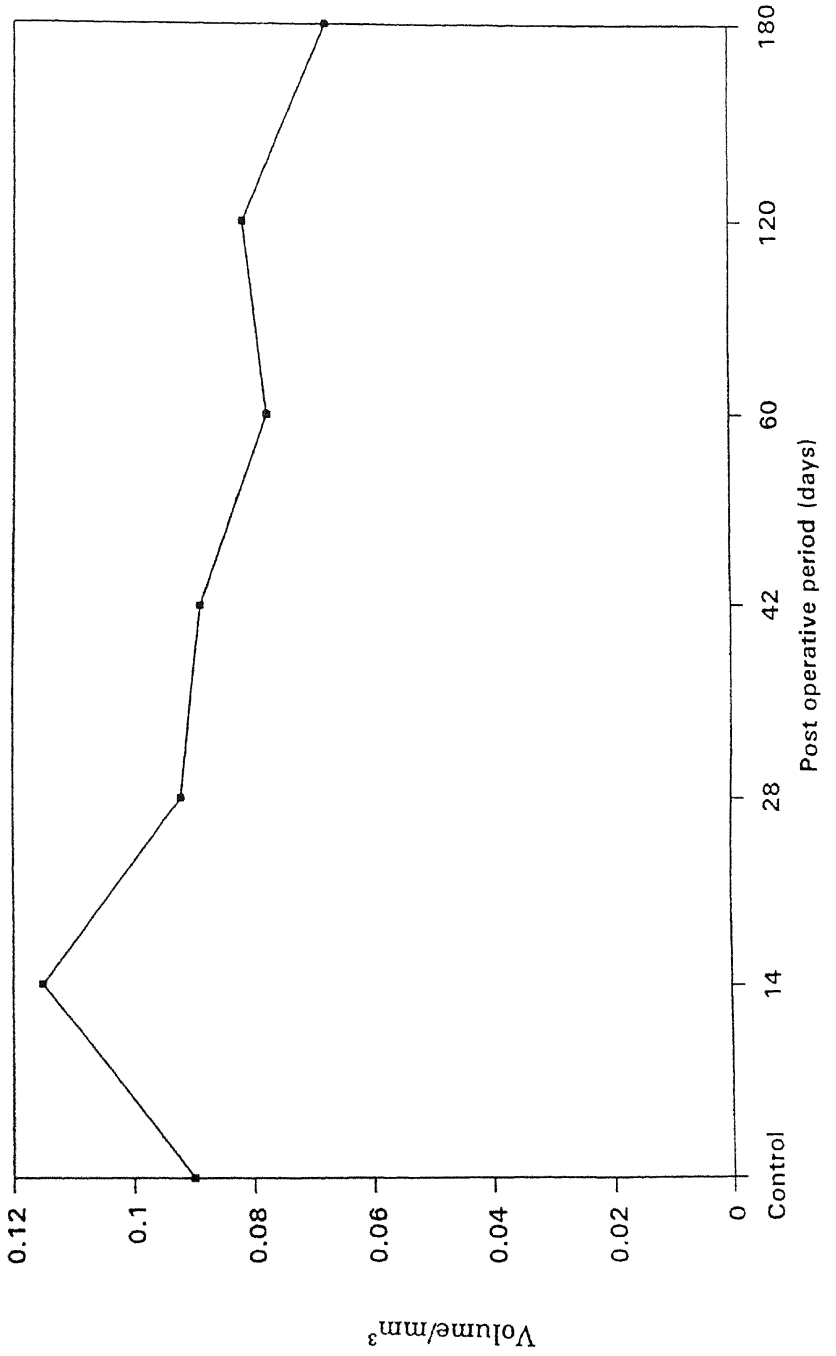
** F, P < 0.01 highly significant.

a,b,c,d - mean values followed by same superscript do not deviate significantly.

NEURONAL VOLUME AMONG THE SUB DIVISIONS OF FACIAL NUCLEUS AFTER FACIAL NERVE TRANSECTION IN BONNET MONKEY



**7. NEURONAL VOLUME OF THE FACIAL NUCLEUS
IN THE NORMAL AND NERVE TRANSECTED
BONNET MONKEYS**



8. Average intercept counts of neurons within the ipsilateral facial nucleus after facial nerve transection

Subdivision	Level	Post operative period in days					
		14	28	42	60	120	180
Dorsal	Cranial	22 ± 1.4	18.4 ± 1.4	22.2 ± 1.7	14.0 ± 1.4	14.4 ± 2.1	16.2 ± 1.2
	Middle	22 ± 1.4	17.0 ± 1.4	21.2 ± 2.6	14.6 ± 1.0	24.4 ± 2.4	16.6 ± 1.6
	Caudal	20 ± 2.8	15.4 ± 1.0	26.2 ± 1.7	13.6 ± 3.0	15.0 ± 2.3	15.0 ± 2.0
Dorsolateral	Cranial	21.6 ± 1.9	17.0 ± 1.4	17.8 ± 1.7	10.6 ± 1.0	11.6 ± 2.4	14.0 ± 2.4
	Middle	17.0 ± 1.4	16.0 ± 1.4	17.6 ± 1.0	11.2 ± 0.7	10.4 ± 1.4	14.0 ± 2.3
	Caudal	17.4 ± 1.0	16.8 ± 0.7	17.2 ± 1.2	10.6 ± 1.6	13.0 ± 2.2	20.8 ± 1.2
Intermediate	Cranial	21.4 ± 2.1	17.0 ± 1.4	20.4 ± 1.9	19.6 ± 4.1	16.0 ± 1.4	15.8 ± 3.7
	Middle	24.6 ± 1.5	21.2 ± 1.3	23.6 ± 1.9	15.2 ± 1.9	15.2 ± 3.5	18.2 ± 2.1
	Caudal	16.8 ± 1.3	17.0 ± 1.4	19.6 ± 2.9	12.4 ± 1.1	13.8 ± 3.5	17.6 ± 1.9
Ventral	Cranial	21.8 ± 1.5	22.0 ± 1.4	29.0 ± 1.4	14.8 ± 1.3	25.6 ± 2.7	19.8 ± 1.6
	Middle	22.6 ± 1.5	23.0 ± 1.4	28.0 ± 3.2	19.0 ± 2.8	16.2 ± 1.2	15.0 ± 1.9
	Caudal	23.2 ± 0.7	22.6 ± 1.0	23.6 ± 2.4	16.8 ± 1.6	17.8 ± 1.7	15.0 ± 3.5
Ventromedial	Cranial	20.0 ± 1.4	10.0 ± 1.4	24.4 ± 2.4	18.2 ± 2.1	17.2 ± 2.1	13.4 ± 2.5
	Middle	15.6 ± 3.8	10.2 ± 2.9	22.8 ± 1.7	18.4 ± 2.2	14.2 ± 8.7	12.4 ± 1.4
	Caudal	7.8 ± 1.2	15.6 ± 2.4	25.4 ± 1.9	14.8 ± 1.2	22.8 ± 2.9	20.2 ± 3.4

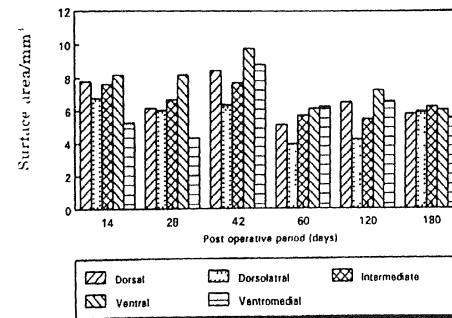
9. Morphometric calculation of neuronal surface area within the facial nucleus after facial nerve transection

Subdivision	Post operative period in days													
	Control		14		28		42		60		120		180	
	Average intercept counts	Calculated area/mm ³	Average intercept counts	Calculated area/mm ³	Average intercept counts	Calculated area/mm ³	Average intercept counts	Calculated area/mm ³	Average intercept counts	Calculated area/mm ³	Average intercept counts	Calculated area/mm ³	Average intercept counts	Calculated area/mm ³
Dorsal**	25.4	9.23 ^a	21.33	7.79 ^b	16.93	6.16 ^c	23.20	8.44 ^{a,b}	14.07	5.12 ^d	17.93	6.52 ^c	15.93	5.79 ^{c,d}
Dorsolateral**	22.1	8.05 ^a	18.67	6.79 ^b	16.60	6.04 ^b	17.53	6.37 ^b	10.80	3.93 ^c	11.67	4.24 ^c	16.27	5.92 ^b
Intermediate**	23.6	8.58 ^a	20.93	7.61 ^a	18.40	6.69 ^{b,c}	21.20	7.71 ^{a,b}	15.73	5.72 ^{c,d}	15.00	5.45 ^d	17.20	6.25 ^{c,d}
Ventral**	25.7	9.33 ^{a,b}	22.53	8.19 ^{b,c}	22.53	8.19 ^{b,c}	26.87	9.77 ^a	16.87	6.13 ^d	19.87	7.23 ^{c,d}	16.60	6.04 ^d
Ventromedial**	20.5	7.47 ^b	14.47	5.26 ^{c,d}	11.93	4.34 ^d	24.20	8.80 ^a	17.13	6.23 ^{b,c}	18.07	6.57 ^{b,c}	15.33	5.57 ^{c,d}

** - F, P<0.01 Highly significant

a,b,c,d - Mean values followed by same superscript do not deviate significantly

NEURONAL SURFACE AREA AMONG THE SUBDIVISIONS OF FACIAL NUCLEUS AFTER FACIAL NERVE TRANSECTION IN BONNET MONKEY



10. NEURONAL SURFACE AREA OF THE FACIAL NUCLEUS IN THE NORMAL AND NERVE TRANSECTED BONNET MONKEYS

