

Asimmetria facciale da ipersviluppo mandibolare sn. con probabile ipertrofia del massetere sn; eccesso verticale del terzo facciale inferiore. Open bite anteriore, morso crociato dx. 1.6/4.6 con contrazione dell'arcata superiore. Deviazione sn. in apertura. Massima apertura misurata clinicamente 40 mm.

**EMG effettuata il 06/07/2009:**

Nel quadro a riposo, ipertono del fascio posteriore del m. temporale sn. rispetto al controlaterale. In massima apertura, lieve iperattività del fascio posteriore del m. temporale e del digastrico sn. rispetto ai controlaterali.

Nel serramento, lieve iperattività degli elevatori sn. rispetto ai controlaterali.

Nel tapping, lieve iperattività di tutti i fasci muscolari sn. rispetto ai controlaterali.

Nella lateralità dx, scarso coinvolgimento muscolare per difficoltà ad effettuare l'esercizio.

Nella lateralità sn, n.d.r.

Nella deglutizione, n.d.r.

**EGG effettuata il 06/07/2009:**

Si registrano i seguenti valori:

- Massima apertura verticale 30 mm. con deviazione dx. di 5,9 mm in massima apertura; Misura di Boley 37,8 mm, compatibile con quanto rilevato clinicamente;
- Crossover a circa 8 mm. dalla massima intercuspidação, visibile sia nel tracciato frontale che in quello sagittale;
- Fisiologica la velocità di apertura (212 mm/s), lievemente diminuita quella di chiusura (178 mm/s);
- Tracciato di protrusiva deviato a dx; permane la deviazione dx. in massima apertura;
- Lateralità notevolmente diminuite (3,4 mm. a dx, 2,8 mm. a sn.);
- Lateralità pendolare irregolare con ridotta escursione verso dx;
- Nelle prove di funzionalità masticatoria si osservano cicli masticatori a circumduzione uniformemente oraria;
- FWS fisiologico;
- anche nella deglutizione si conferma la deviazione dx. nel passaggio dalla massima intercuspidação alla posizione di apertura.

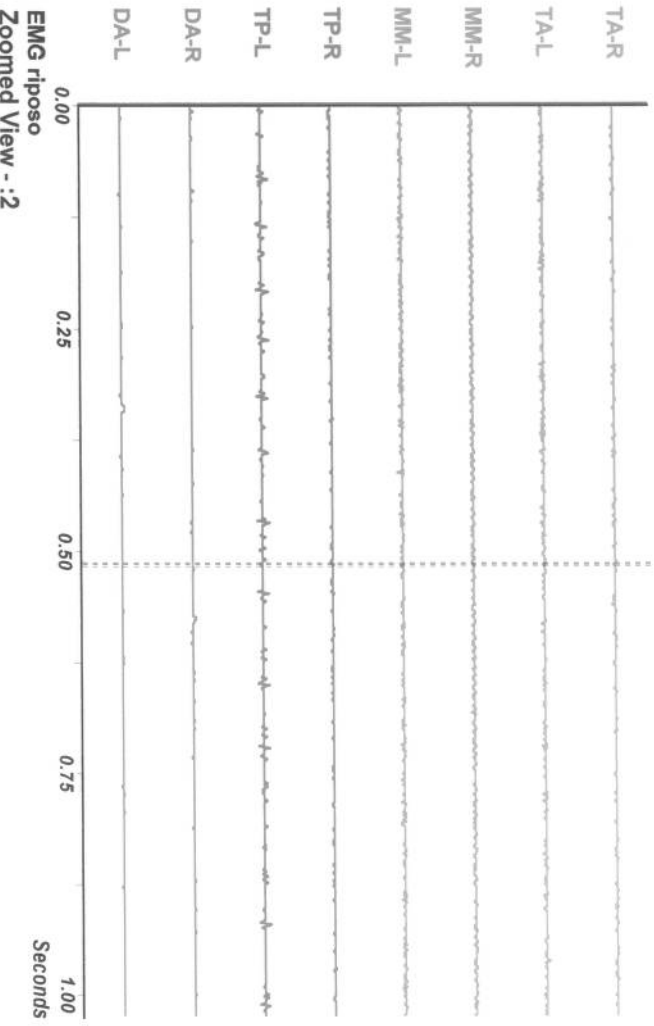
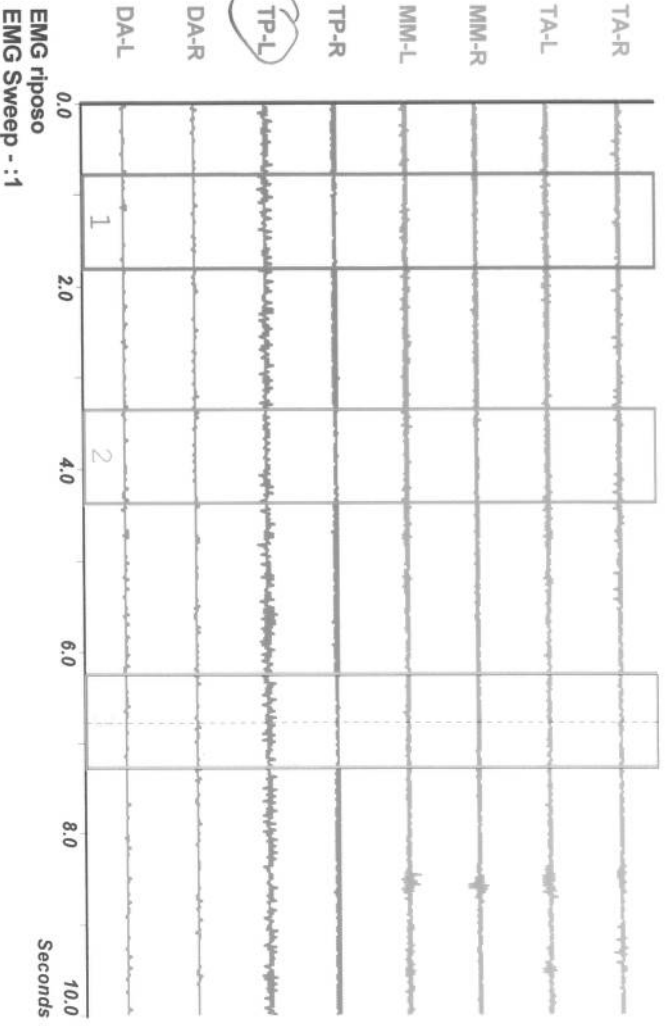
## **Conclusioni:**

L'esame elettromiografico ha fatto rilevare segni di asimmetria funzionale del tono e della sinergia muscolare nelle diverse fasi dinamiche, in particolare si fa rilevare una iperattività dei fasci muscolari di sn. (muscoli temporale e massetere) rispetto ai controlaterali.

L'esame kinesigrafico ha fatto rilevare una lieve asimmetria della dinamica mandibolare con deviazione a dx. in massima apertura, legata alla asimmetria strutturale, da verificare con esame Rx.

Prof. A. Silvestri

Esame eseguito dal dott. R.A. Vernucci



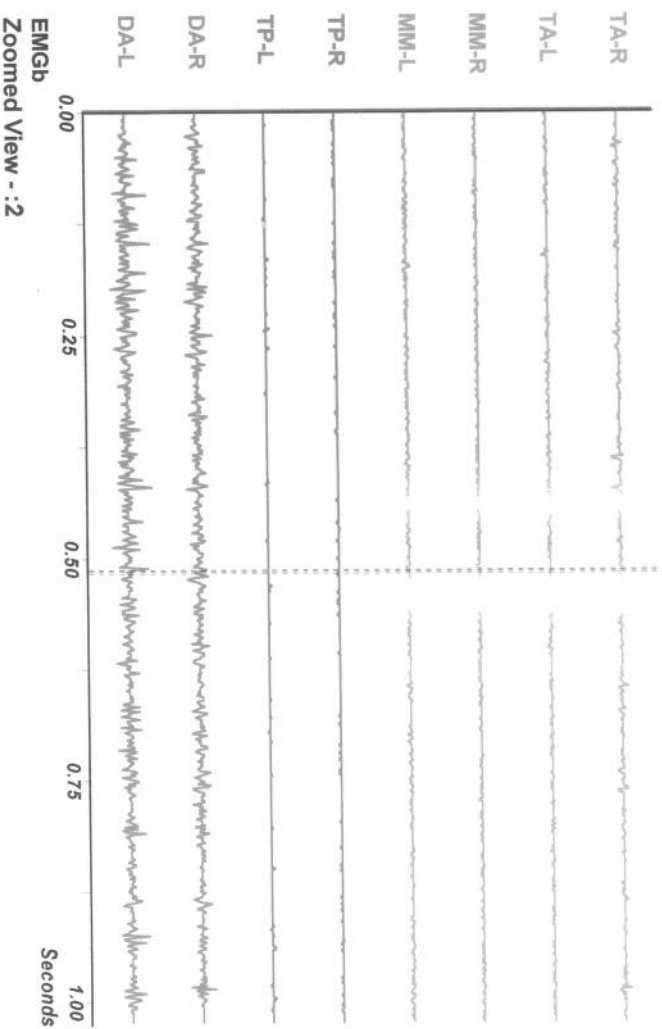
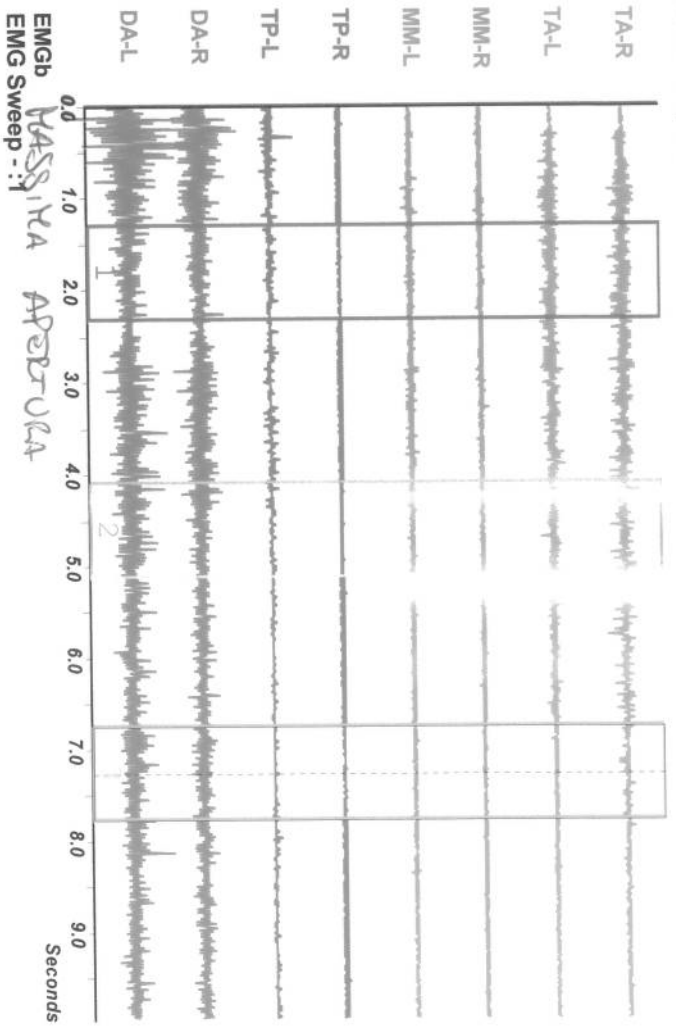
	Ave. $\mu$ V	Window 1 $\mu$ V ms	Window 2 $\mu$ V ms	Window 3 $\mu$ V ms
TA-R	2.6	2.9 1024	3.4 1024	1.5 1024
TA-L	3.2	3.4 1024	3.9 1024	2.4 1024
MM-R	3.1	3.1 1024	2.9 1024	3.2 1024
MM-L	3.6	3.7 1024	4.5 1024	2.7 1024
TP-R	1.9	1.9 1024	2.0 1024	1.9 1024
TP-L	4.9 $\dagger$	4.9 1024	4.5 1024	5.3 1024
DA-R	4.1	3.9 1024	4.3 1024	4.2 1024
DA-L	4.0	3.9 1024	4.0 1024	4.1 1024

EMG riposo

EMG Summary -

	TA-R	TA-L	MM-R	MM-L	TP-R	TP-L	DA-R	DA-L
0	0	0	0	0	0	0	0	0
0	3	3	0	3	3	0	3	0
0	0	0	0	0	0	0	0	0
0	3	3	3	0	3	0	3	3
0	0	0	0	3	3	0	0	3
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	6	3	6	3	6	3	3	3
0	3	3	3	3	3	0	3	3
0	3	3	3	3	3	3	3	3
0	3	3	3	3	3	3	3	3
0	3	3	3	3	3	3	3	3
0	3	3	3	3	3	3	3	3

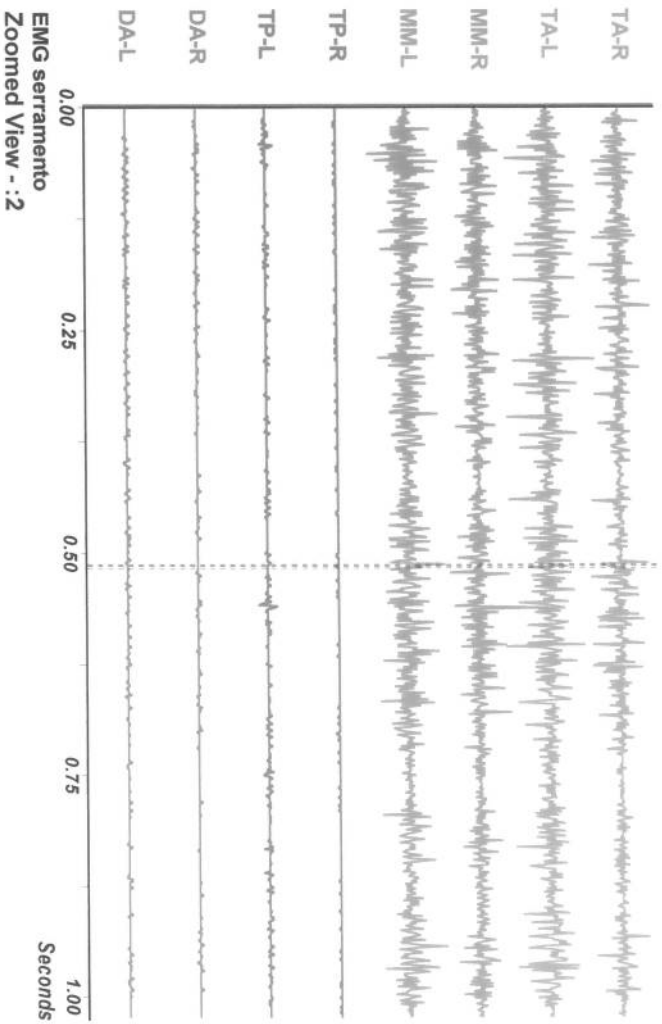
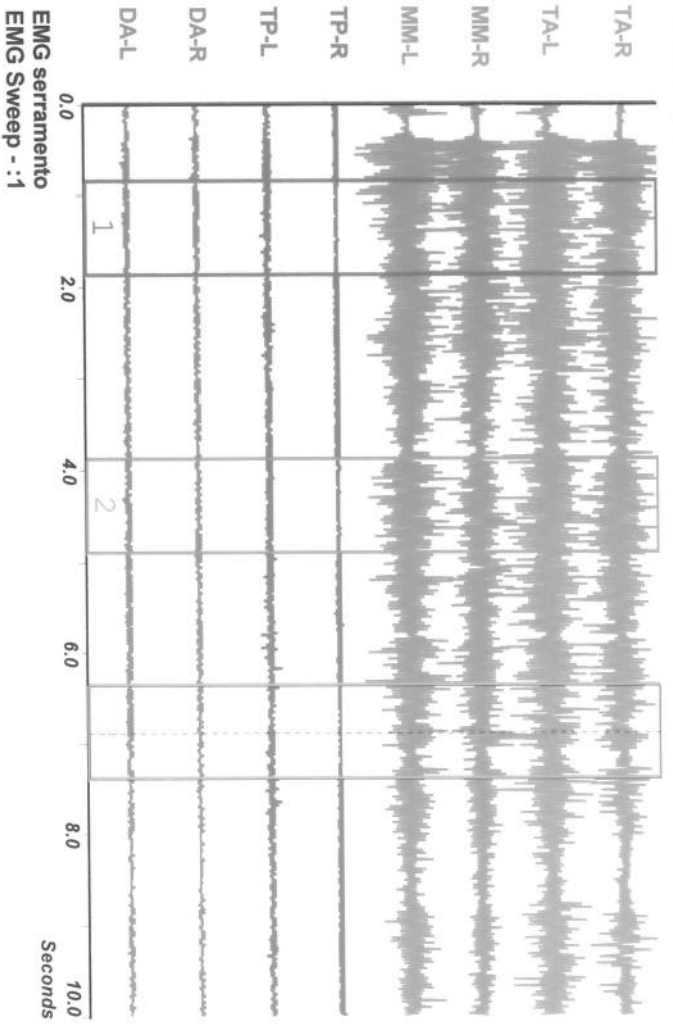
EMG riposo  
Averaged EMG - :3



	Window 1		Window 2		Window 3	
	$\mu$ V	ms	$\mu$ V	ms	$\mu$ V	ms
TA-R	8.9	12.0	10.3	3	4.3	1024
TA-L	7.3	11.3	8.0	593	2.5	1024
MM-R	3.9	4.7	3.9	1024	3.1	1024
MM-L	4.5	5.5	4.7	1024	3.2	1024
TP-R	2.4	2.5	2.5	1024	2.3	1024
TP-L	4.4	4.7	4.3	1024	4.1	1024
DA-R	16.9	17.9	18.8	64	14.1	65
DA-L	21.0	20.7	24.2	10	18.1	51

EMG Summary -

	TA-R	TA-L	MM-R	MM-L	TP-R	TP-L	DA-R	DA-L
0	3	3	3	0	0	3	6	6
0.25	3	3	3	0	0	3	9	9
0.50	3	3	3	0	0	3	12	12
0.75	3	3	3	0	0	3	12	12
1.00	3	3	3	0	0	3	12	12
Averaged EMG - :3	6	6	6	0	0	6	19	19
	19	19	19	0	0	19	22	22

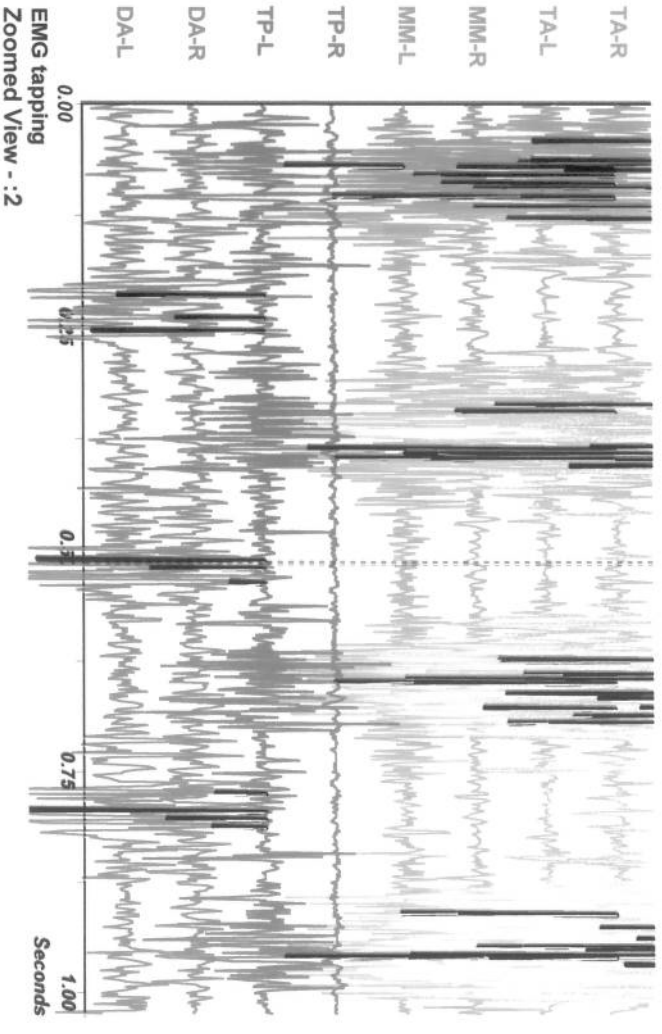
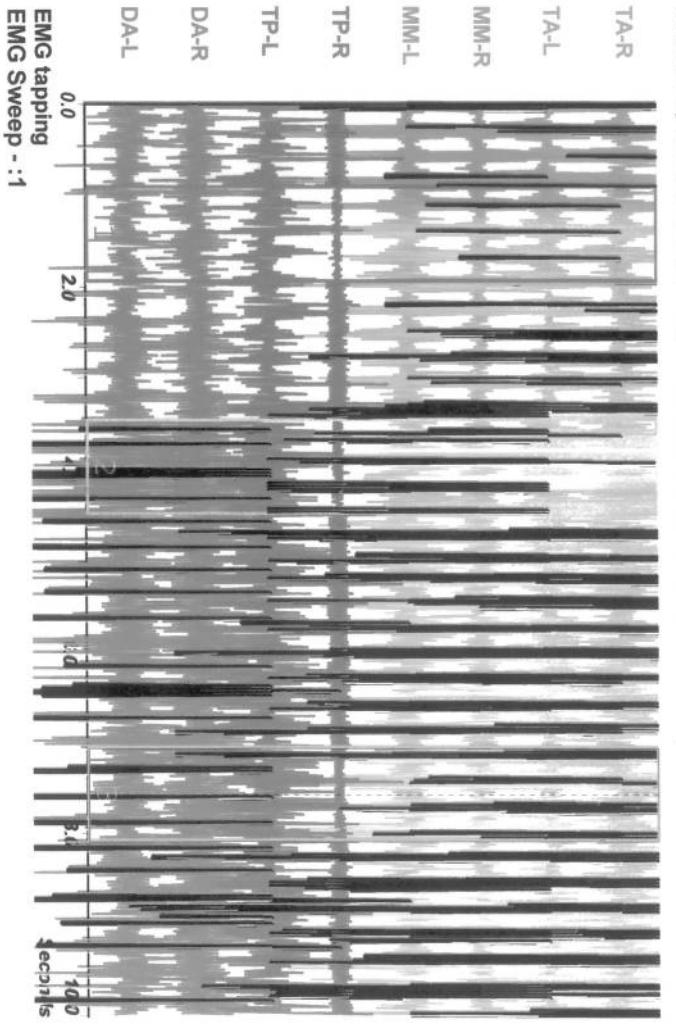


	Window 1		Window 2		Window 3	
	$\mu V$	ms	$\mu V$	ms	$\mu V$	ms
TA-R	40.1	1	48.8	28	25.4	14
TA-L	53.8	0	56.8	15	41.2	20
MM-R	38.5	0	48.4	0	37.5	36
MM-L	49.8	0	57.1	0	53.3	25
TP-R	2.3	1024	2.7	1024	2.1	1024
TP-L	6.2	594	6.4	1024	6.4	1024
DA-R	5.2	1024	5.4	1024	5.3	1024
DA-L	5.7	1024	5.7	1024	6.0	1024

EMG serramento

EMG Summary -

	TA-R	TA-L	MM-R	MM-L	TP-R	TP-L	DA-R	DA-L
0	25	25	28	22	0	0	0	0
0.25	31	47	50	56	0	3	3	6
0.50	34	56	34	41	0	6	3	3
0.75	34	34	31	41	0	3	3	3
1.00	34	34	34	47	0	3	3	3



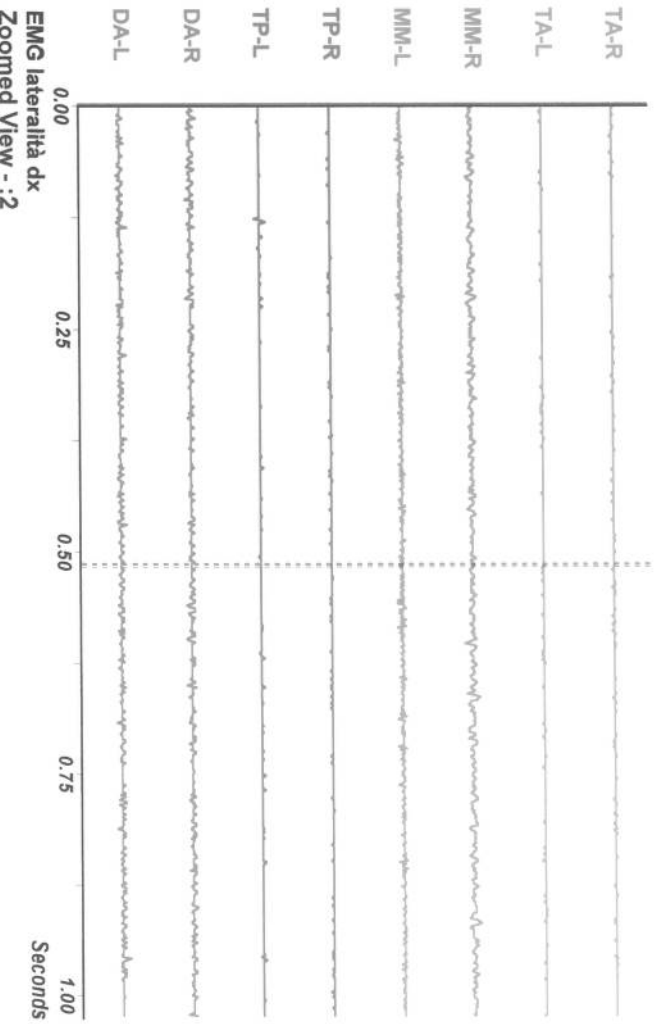
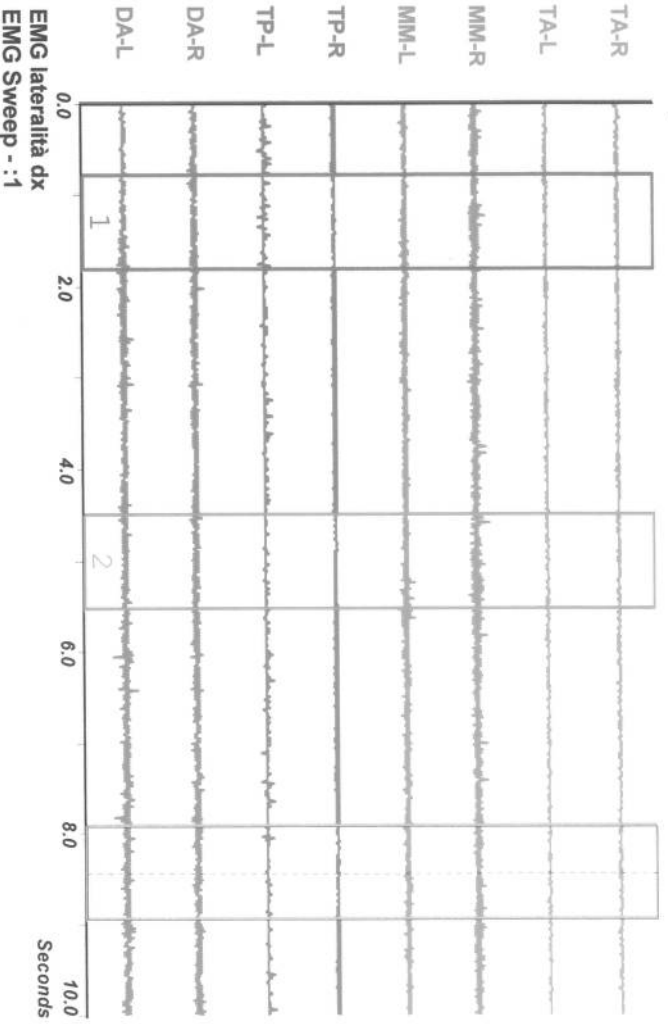
	Window 1		Window 2		Window 3		
	µV	ms	µV	ms	µV	ms	
TA-R	29.7	15.8	12	35.8	19	37.6	1
TA-L	33.9	23.7	13	38.5	17	39.5	0
MM-R	19.0	10.3	1	23.3	28	23.5	14
MM-L	29.1	17.8	18	35.6	11	34.1	17
TP-R	2.1	1.6	1024	2.5	200	2.3	100
TP-L	17.8	11.1	20	19.9	19	22.2	12
DA-R	16.9	9.9	0	23.9	10	16.8	27
DA-L	26.3	11.3	0	42.5	2	25.2	0

EMG tapping

EMG tapping

Averaged EMG - :3

	Window 1		Window 2		Window 3									
	µV	ms	µV	ms	µV	ms								
TA-R	138	93.1	188	88	175	55.0	33.8	8.1	19.4	73.8	125	11.9	11.2	70.0
TA-L	131	77.5	11.9	4.4	24.4	61.9	23.8	3.1	37.5	61.2	13.8	1.9	11.2	84.4
MM-R	6.2	56.9	11.9	7.5	8.1	38.1	8.8	5.0	10.6	50.0	3.8	6.9	8.8	50.6
MM-L	7.5	51.2	33.8	11.9	11.9	60.0	37.5	8.8	18.1	52.5	21.9	5.6	14.4	73.8
TP-R	2.5	3.1	1.2	1.2	1.2	1.9	1.2	1.2	1.9	3.1	1.2	1.9	1.9	1.9
TP-L	10.6	35.6	8.8	6.9	20.6	41.2	10.6	6.2	23.1	34.4	5.0	12.5	20.6	48.8
DA-R	4.4	10.6	16.9	26.9	9.4	7.5	15.6	38.8	6.2	15.0	13.8	33.8	13.8	11.9
DA-L	12.5	14.4	15.6	60.0	8.8	8.1	22.5	71.9	11.2	8.8	30.6	74.4	16.2	7.5



	Window 1		Window 2		Window 3	
	$\mu$ V	ms	$\mu$ V	ms	$\mu$ V	ms
TA-R	1.9	1024	1.9	1024	1.7	1024
TA-L	0.7	1024	0.9	1024	0.6	1024
MM-R	9.2	448	11.4	91	7.8	1024
MM-L	4.8	1024	5.0	1024	5.2	1024
TP-R	2.6	1024	2.2	1024	2.8	1024
TP-L	4.5	1024	4.4	1024	4.5	1024
DA-R	6.9	1024	6.7	1024	7.2	1024
DA-L	6.6	1024	6.4	1024	7.2	1024

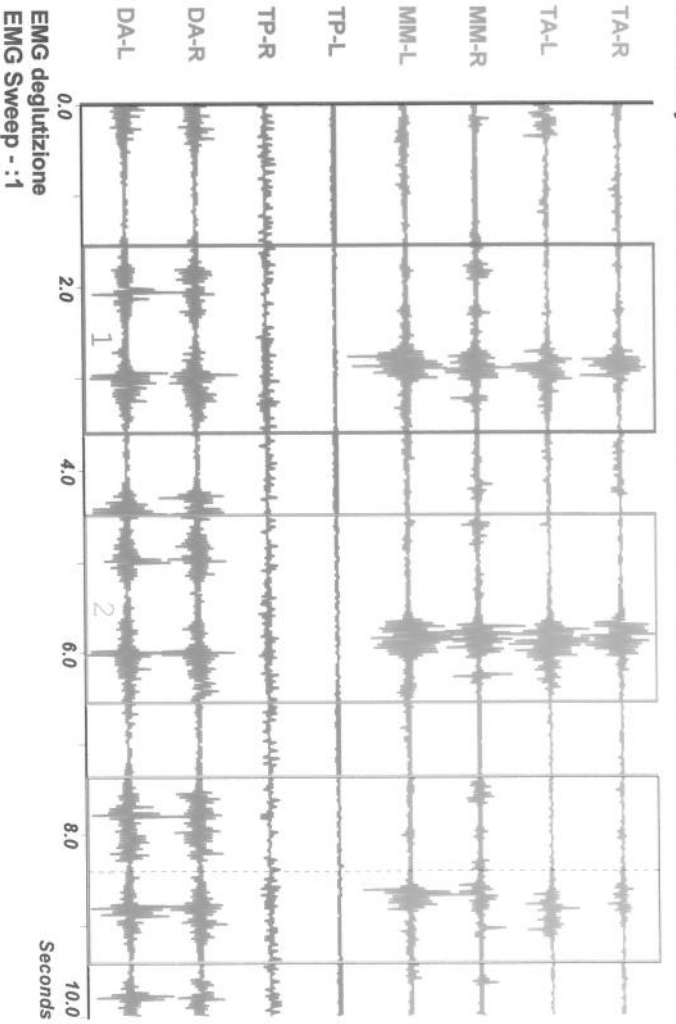
EMG lateralità dx

EMG Summary -

	TA-R	TA-L	MM-R	MM-L	TP-R	TP-L	DA-R	DA-L
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
6	3	6	3	9	6	6	9	12
3	3	3	3	3	6	6	3	3
0	0	0	0	3	3	0	3	3
0	0	0	0	3	3	0	3	3
9	9	6	6	3	6	3	9	6
6	6	6	6	6	6	6	3	6

EMG lateralità dx Averaged EMG - :3

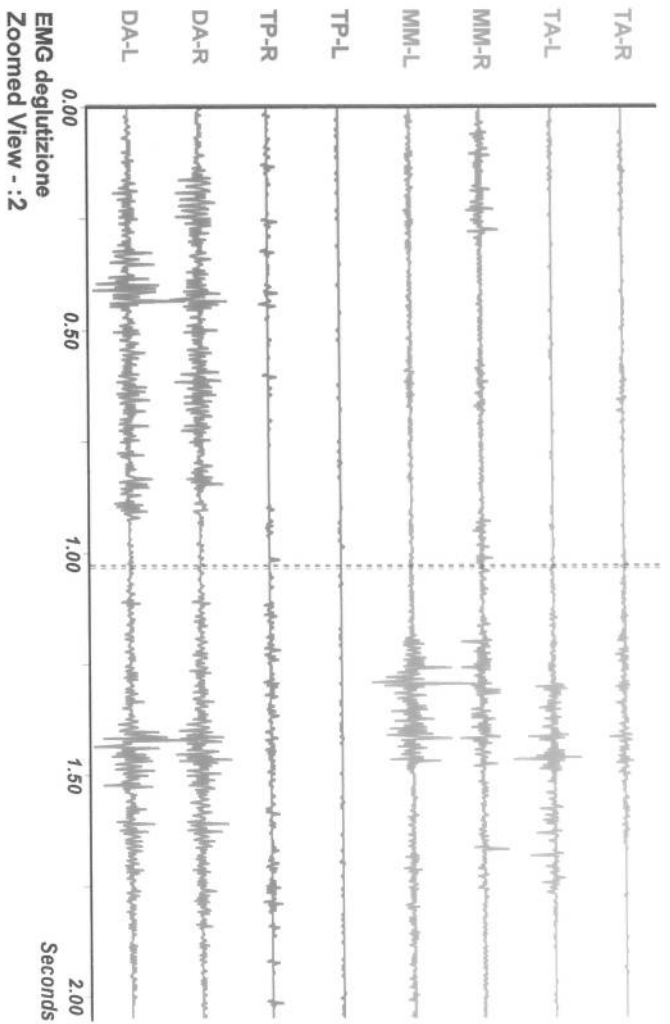




	Ave. $\mu$ V	Window 1 $\mu$ V ms	Window 2 $\mu$ V ms	Window 3 $\mu$ V ms
TA-R	7.3	8.1 1160	9.7 1178	4.1 1240
TA-L	9.7	9.1 1158	14.1 1180	5.9 1295
MM-R	12.3	13.5 210	14.2 80	9.1 107
MM-L	15.5	17.0 1140	18.5 1145	11.0 1200
TP-L	3.2	3.3 2048	3.4 2048	3.0 2048
TP-R	7.2	7.7 22	7.2 341	6.8 255
DA-R	21.6	20.6 245	21.0 21	23.2 157
DA-L	20.4	18.9 245	20.3 12	21.9 171

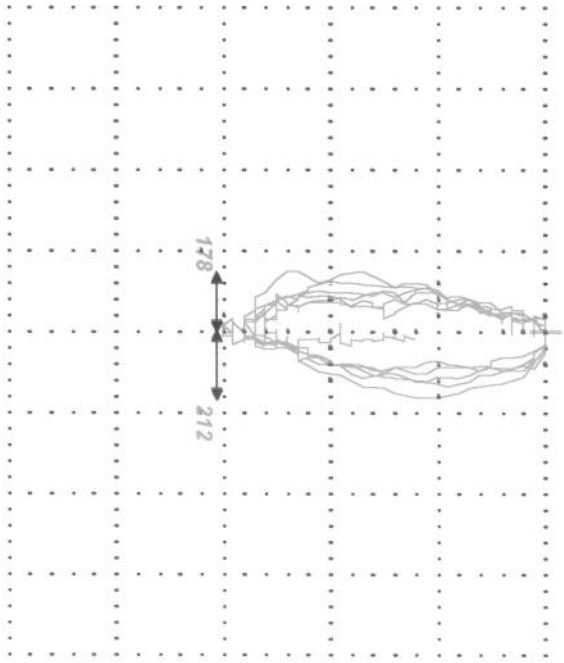
EMG deglutizione

EMG Summary -

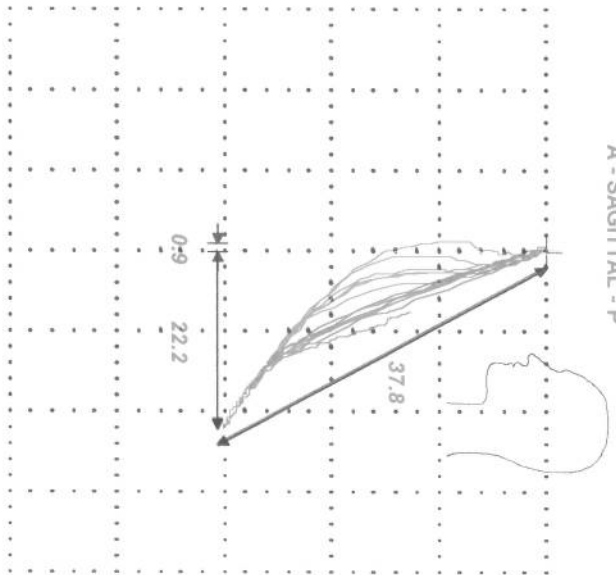


	TA-R	TA-L	MM-R	MM-L	TP-L	TP-R	DA-R	DA-L
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	9	3	3	3	3	3	3	3
3	6	3	3	9	3	0	3	3
6	38	19	50	31	19	19	6	12
9	16	34	59	25	19	34	6	9
12	9	16	19	19	6	12	12	22
15	12	47	16	16	6	3	6	59
18	6	19	6	6	3	3	3	44
21	0	0	0	0	0	0	0	9
24	0	0	0	0	0	0	0	9
27	0	0	0	0	0	0	0	9
30	0	0	0	0	0	0	0	9
33	0	0	0	0	0	0	0	9
36	0	0	0	0	0	0	0	9
39	0	0	0	0	0	0	0	9
42	0	0	0	0	0	0	0	9
45	0	0	0	0	0	0	0	9
48	0	0	0	0	0	0	0	9
51	0	0	0	0	0	0	0	9
54	0	0	0	0	0	0	0	9
57	0	0	0	0	0	0	0	9
60	0	0	0	0	0	0	0	9
63	0	0	0	0	0	0	0	9
66	0	0	0	0	0	0	0	9
69	0	0	0	0	0	0	0	9
72	0	0	0	0	0	0	0	9
75	0	0	0	0	0	0	0	9
78	0	0	0	0	0	0	0	9
81	0	0	0	0	0	0	0	9
84	0	0	0	0	0	0	0	9
87	0	0	0	0	0	0	0	9
90	0	0	0	0	0	0	0	9
93	0	0	0	0	0	0	0	9
96	0	0	0	0	0	0	0	9
99	0	0	0	0	0	0	0	9
102	0	0	0	0	0	0	0	9
105	0	0	0	0	0	0	0	9
108	0	0	0	0	0	0	0	9
111	0	0	0	0	0	0	0	9
114	0	0	0	0	0	0	0	9
117	0	0	0	0	0	0	0	9
120	0	0	0	0	0	0	0	9
123	0	0	0	0	0	0	0	9
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159	0	0	0	0	0	0	0	9
162	0	0	0	0	0	0	0	9
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168	0	0	0	0	0	0	0	9
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201	0	0	0	0	0	0	0	9
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207	0	0	0	0	0	0	0	9
210	0	0	0	0	0	0	0	9
213	0	0	0	0	0	0	0	9
216	0	0	0	0	0	0	0	9
219	0	0	0	0	0	0	0	9
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225	0	0	0	0	0	0	0	9
228	0	0	0	0	0	0	0	9
231	0	0	0	0	0	0	0	9
234	0	0	0	0	0	0	0	9
237	0	0	0	0	0	0	0	9
240	0	0	0	0	0	0	0	9
243	0	0	0	0	0	0	0	9
246	0	0	0	0	0	0	0	9
249	0	0	0	0	0	0	0	9
252	0	0	0	0	0	0	0	9
255	0	0	0	0	0	0	0	9
258	0	0	0	0	0	0	0	9
261	0	0	0	0	0	0	0	9
264	0	0	0	0	0	0	0	9
267	0	0	0	0	0	0	0	9
270	0	0	0	0	0	0	0	9
273	0	0	0	0	0	0	0	9
276	0	0	0	0	0	0	0	9
279	0	0	0	0	0	0	0	9
282	0	0	0	0	0	0	0	9
285	0	0	0	0	0	0	0	9
288	0	0	0	0	0	0	0	9
291	0	0	0	0	0	0	0	9
294	0	0	0	0	0	0	0	9
297	0	0	0	0	0	0	0	9
300	0	0	0	0	0	0	0	9
303	0	0	0	0	0	0	0	9
306	0	0	0	0	0	0	0	9
309	0	0	0	0	0	0	0	9
312	0	0	0	0	0	0	0	9
315	0	0	0	0	0	0	0	9
318	0	0	0	0	0	0	0	9
321	0	0	0	0	0	0	0	9
324	0	0	0	0	0	0	0	9
327	0	0	0	0	0	0	0	9
330	0	0	0	0	0	0	0	9
333	0	0	0	0	0	0	0	9
336	0	0	0	0	0	0	0	9
339	0	0	0	0	0	0	0	9
342	0	0	0	0	0	0	0	9
345	0	0	0	0	0	0	0	9
348	0	0	0	0	0	0	0	9
351	0	0	0	0	0	0	0	9
354	0	0	0	0	0	0	0	9
357	0	0	0	0	0	0	0	9
360	0	0	0	0	0	0	0	9
363	0	0	0	0	0	0	0	9
366	0	0	0	0	0	0	0	9
369	0	0	0	0	0	0	0	9
372	0	0	0	0	0	0	0	9
375	0	0	0	0	0	0	0	9
378	0	0	0	0	0	0	0	9
381	0	0	0	0	0	0	0	9
384	0	0	0	0	0	0	0	9
387	0	0	0	0	0	0	0	9
390	0	0	0	0	0	0	0	9
393	0	0	0	0	0	0	0	9
396	0	0	0	0	0	0	0	9
399	0	0	0	0	0	0	0	9
402	0	0	0	0	0	0	0	9
405	0	0	0	0	0	0	0	9
408	0	0	0	0	0	0	0	9
411	0	0	0	0	0	0	0	9
414	0	0	0	0	0	0	0	9
417	0	0	0	0	0	0	0	9
420	0	0	0	0	0	0	0	9
423	0	0	0	0	0	0	0	9
426	0	0	0	0	0	0	0	9
429	0	0	0	0	0	0	0	9
432	0	0	0	0	0	0	0	9
435	0	0	0	0	0	0	0	9
438	0	0	0	0	0	0	0	9
441	0	0	0	0	0	0	0	9
444	0	0	0	0	0	0	0	9
447	0	0	0	0	0	0	0	9
450	0	0	0	0	0	0	0	9
453	0	0	0	0	0	0	0	9
456	0	0	0	0	0	0	0	9
459	0	0	0	0	0	0	0	9
462	0	0	0	0				

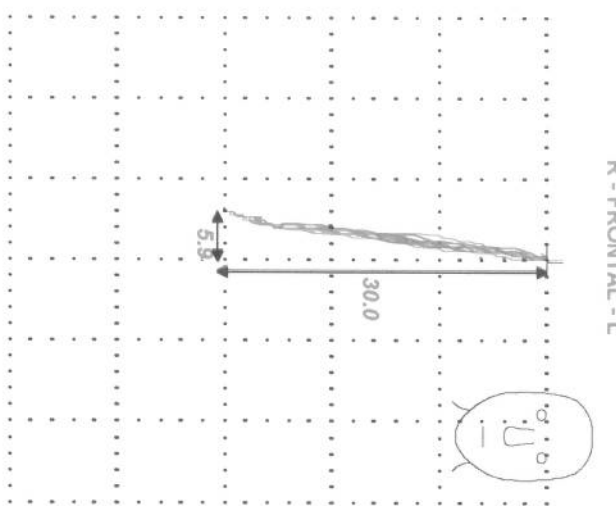
C - VELOCITY - O



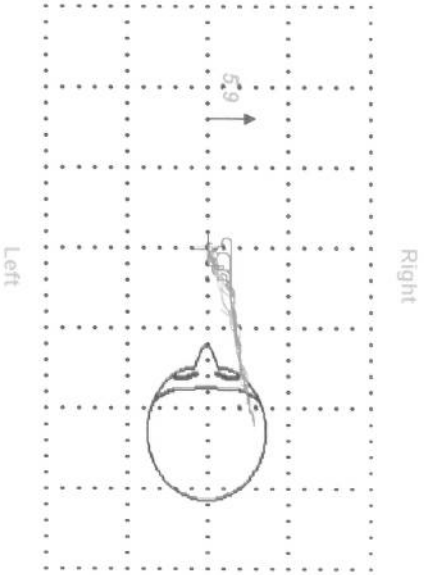
A - SAGITTAL - P



R - FRONTAL - L



HORIZONTAL



Vertical: 10 mm per division Lateral: 10 mm per division Ant./Post.: 10 mm per division Velocity: 250 mm/sec per division  
EMG aprt-child1

X-Y

2.0

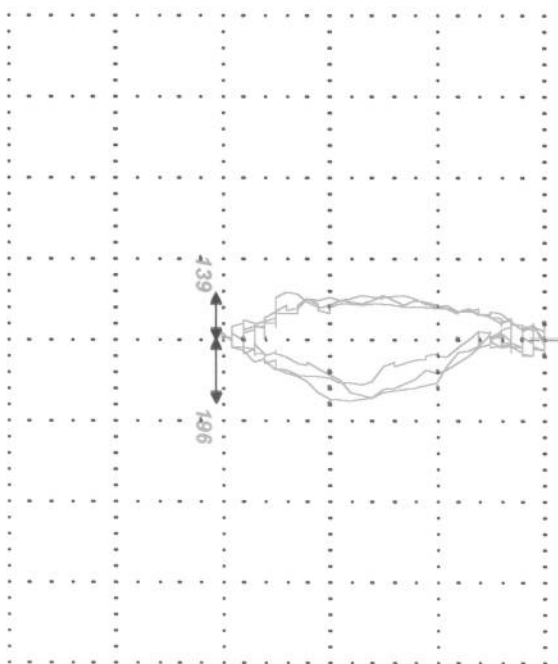
4.0

6.0

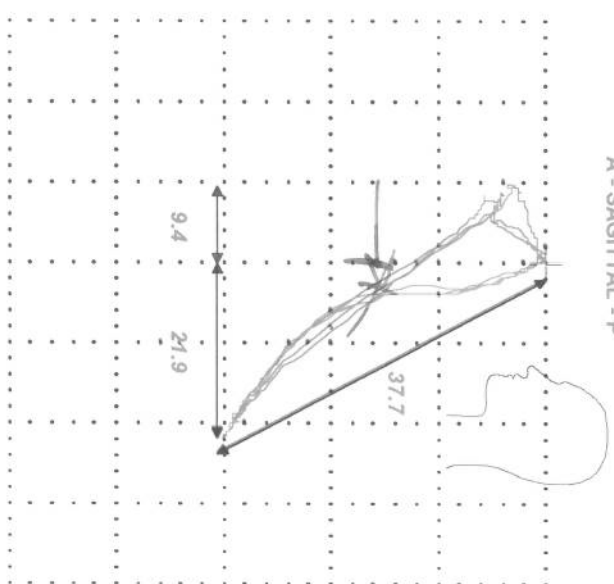
8.0

10.0

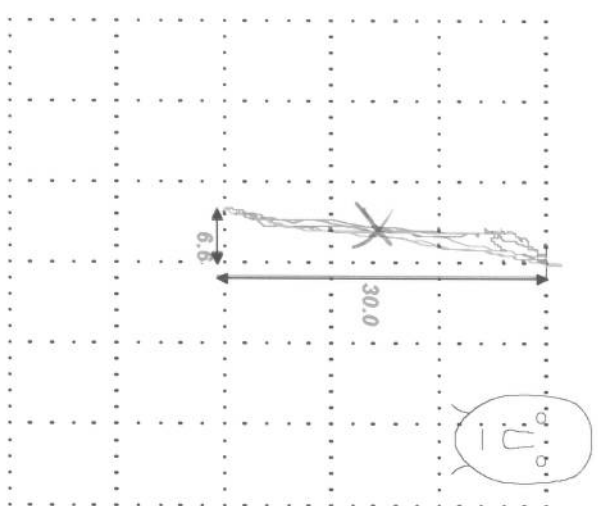
C - VELOCITY - O



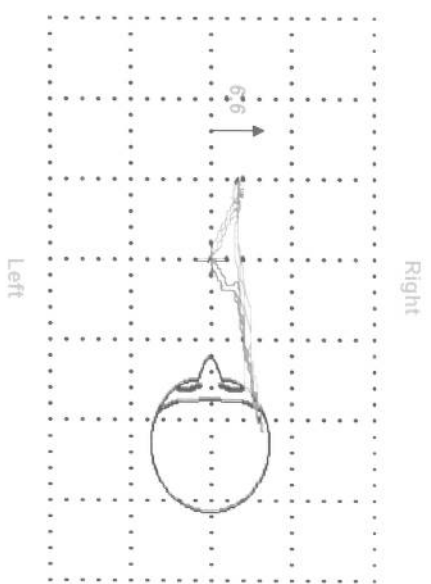
A - SAGITTAL - P



R - FRONTAL - L



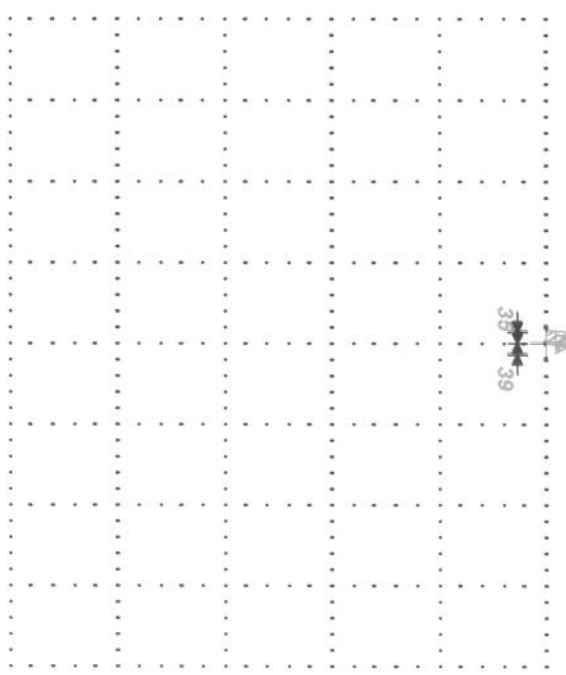
HORIZONTAL



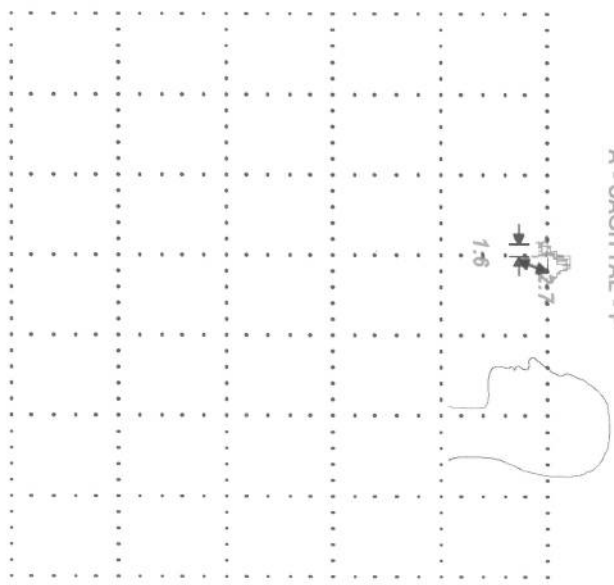
Vertical: 10 mm per division Lateral: 10 mm per division Ant./Post.: 10 mm per division Velocity: 250 mm/sec per division  
**EGG posselt**

0.0 2.0 4.0 6.0 8.0 10.0  
 X-Y

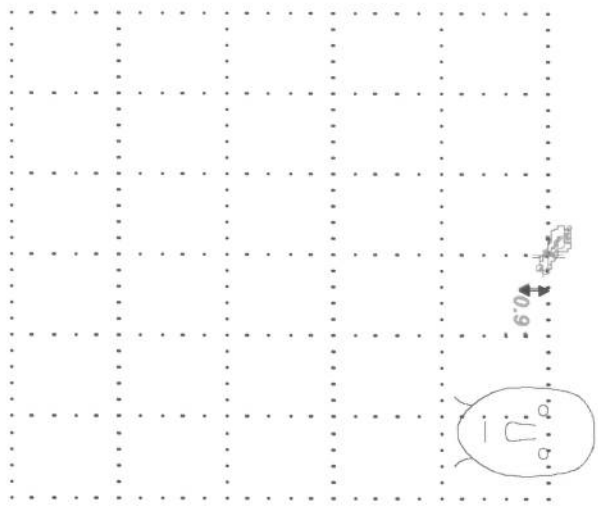
C - VELOCITY - O



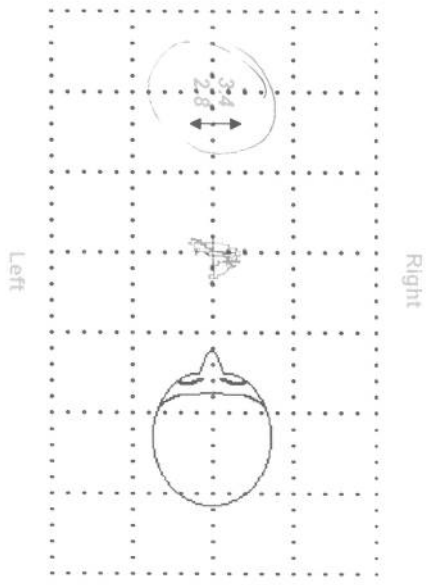
A - SAGITTAL - P



R - FRONTAL - L



HORIZONTAL

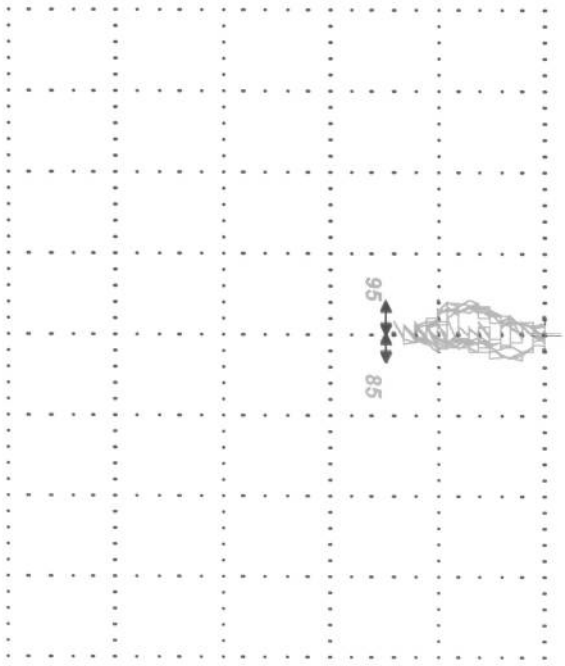


Vertical: 10 mm per division Lateral: 10 mm per division Antl./Post.: 10 mm per division Velocity: 250 mm/sec per division

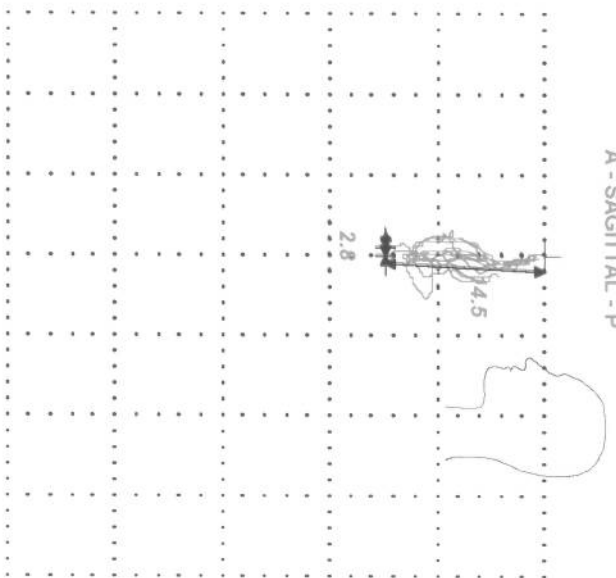
EGG lateralità dx/sn

0.0 2.0 4.0 6.0 8.0 10.0  
X-Y

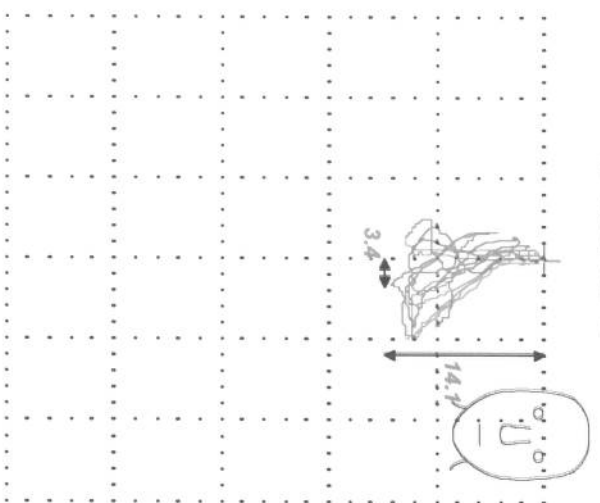
C - VELOCITY - O



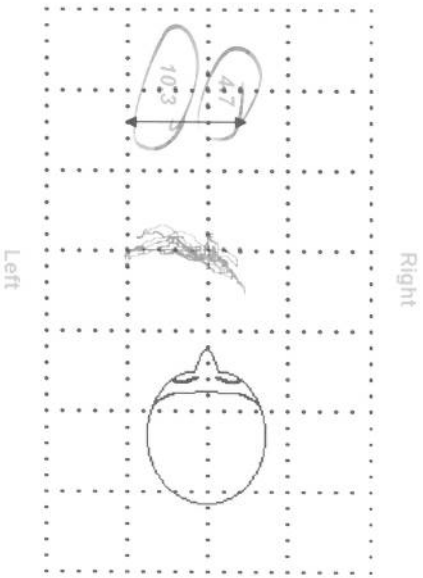
A - SAGITTAL - P



R - FRONTAL - L



HORIZONTAL



Vertical: 10 mm per division Lateral: 10 mm per division Ant./Post.: 10 mm per division Velocity: 250 mm/sec per division

EMG lateralia pendolare

X-Y

0.0

2.0

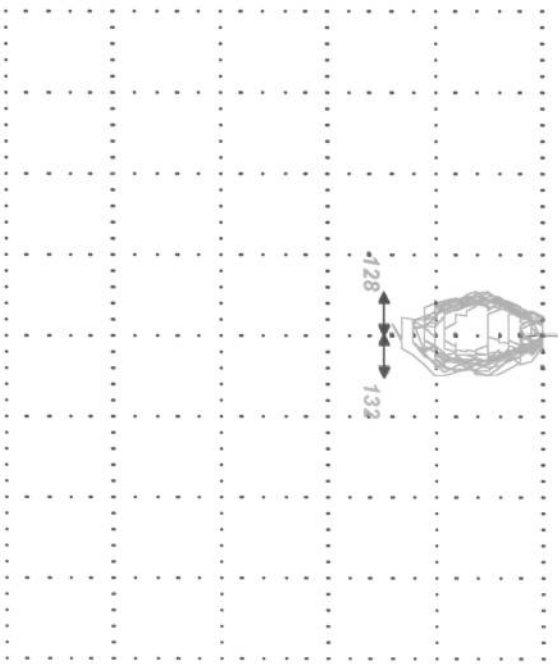
4.0

6.0

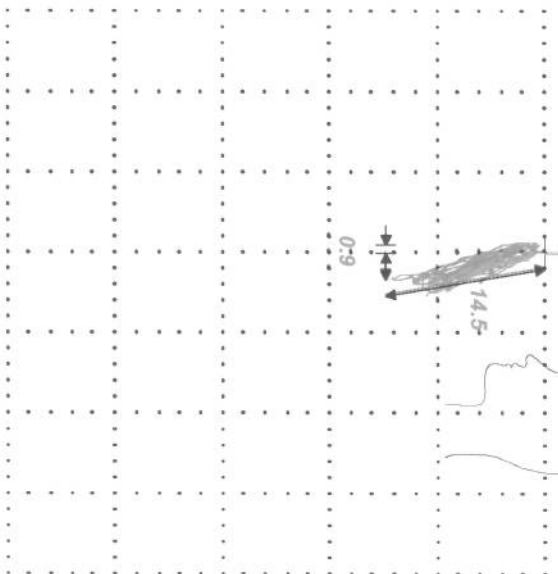
8.0

10.0

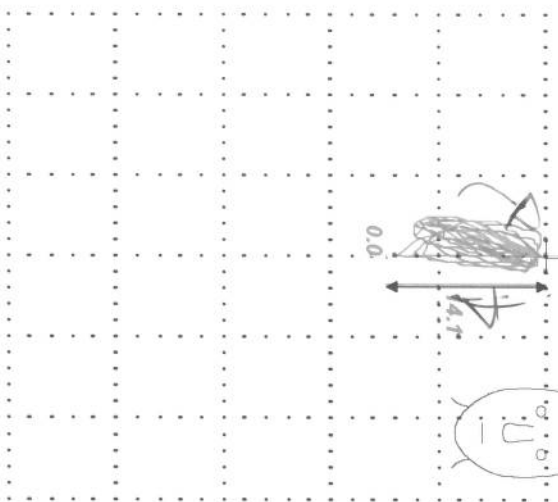
C - VELOCITY - O



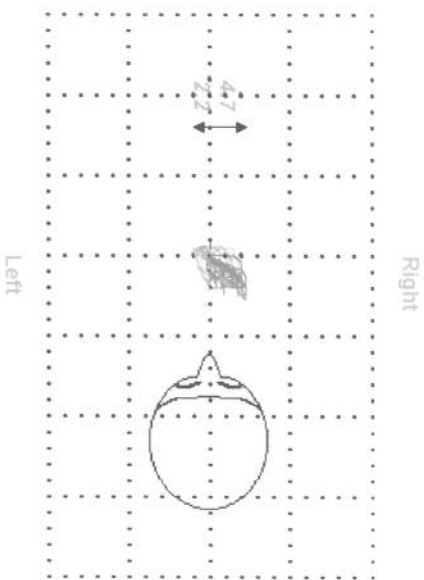
A - SAGITTAL - P



R - FRONTAL - L

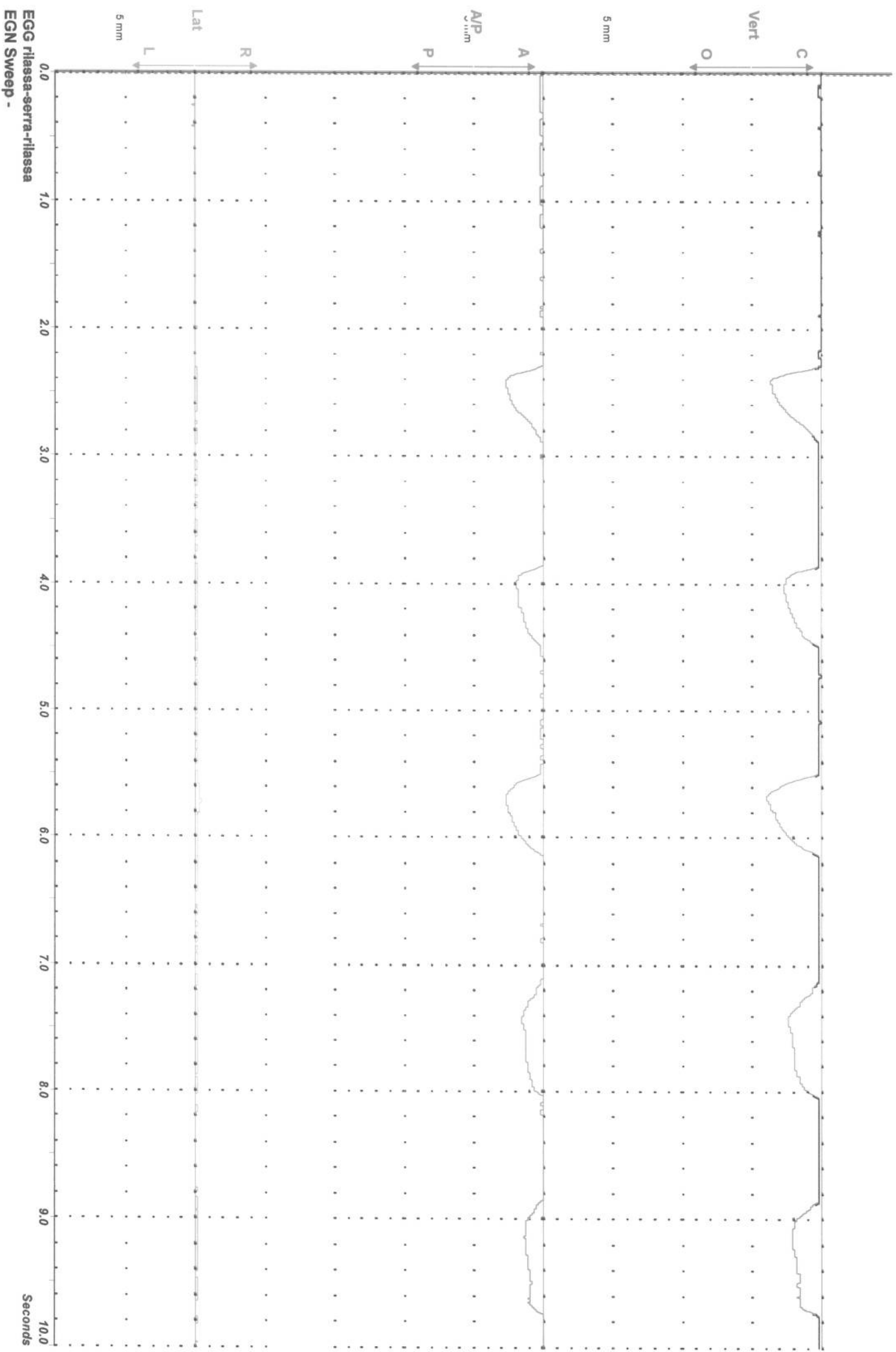


HORIZONTAL



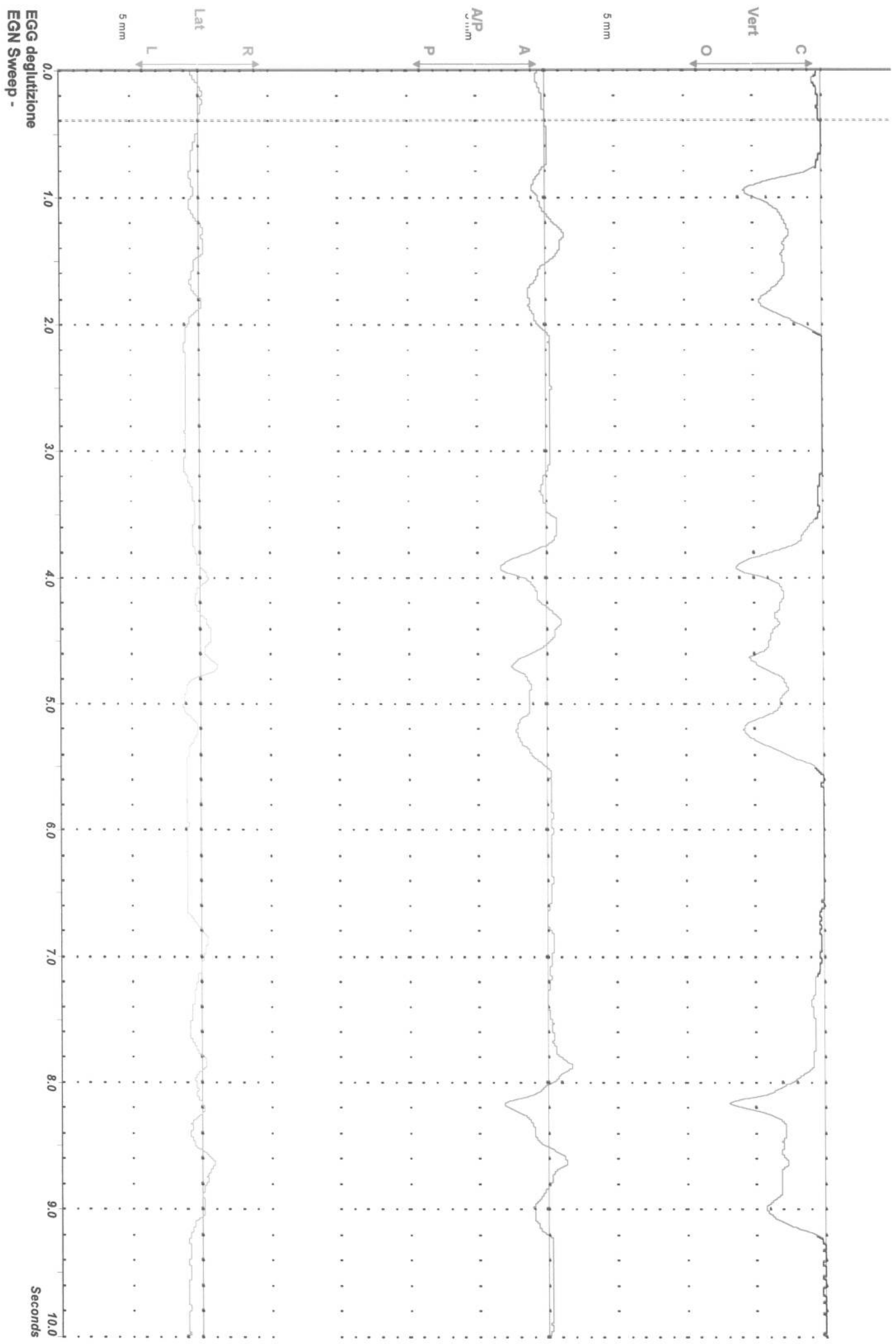
Vertical: 10 mm per division Lateral: 10 mm per division Ant./Post.: 10 mm per division Velocity: 250 mm/sec per division

EGG masticazione  
0.0 2.0 4.0 6.0 8.0 10.0  
X-Y



EGG rilascia-serra-rilassa  
EGN Sweep -

Seconds



EGG deglutizione  
EGN Sweep -

Seconds