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**PREDICTION OF MANDIBULAR RESPONSIVENESS INDUCED BY THE HERBST APPLIANCE WITH ANCHORAGE REINFORCEMENT IN THE LOWER ARCH.**



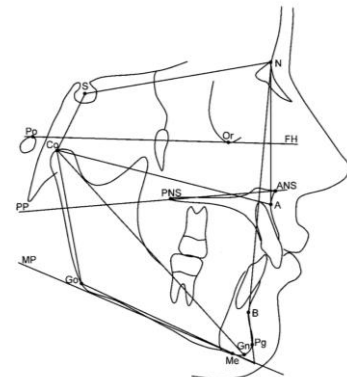
**AIM**

The aim of this comparative investigation was to evaluate the effect of Herbst treatment with anchorage reinforcement in the lower arch in regards of the Co-Go-Me parameter value ( $125,5^\circ$ ).

**MATERIALS AND METHOD**

Fortyfour consecutively class II growing patients (24 M, 20 F) were observed before (T0) and after (T1) Herbst therapy. Patients were classified into two groups according to their Co-Go-Me baseline value ( $<125,5^\circ$  for Group 1, and  $>125,5^\circ$  for Group 2). A cephalometric analysis was performed. The primary outcome of the investigation was the difference between groups in mandibular responsiveness to the treatment, intended as the longitudinal relative difference (RD) in Pg\_Olp, Co\_Gn, Co\_Go and SN/GoMe values.

Cephalometric variables were tested by the Student's t-Test P value adjusted by using Bonferroni method or Mann-Whitney U test P value adjusted by using Bonferroni method.



**CONCLUSION AND RESULTS**

No significant differences between groups in cephalometric parameters were detected at baseline, except than for Co\_Go, L1/MP, and SN/GoMe ( $p = 0.004, 0.018$  and  $< 0.001$  respectively).

No significant differences were found between longitudinal RD means of patients belonging to Group 1 and Group 2 for the selected mandibular responsiveness parameters.

	N	Pg_Olp RD		Co_Gn RD		Co_Go RD		SN/GoMe RD	
		Mean $\pm$ SD	P value	Mean $\pm$ SD	P value	Mean $\pm$ SD	P value	Mean $\pm$ SD	P value
<b>CoGoMe</b>									
$> 125,5^\circ$	16	4.00 (2.73)	0.648	3.79 (2.26)	0.600	2.26 (3.44)	0.651	-0.82 (2.26)	0.799
$< 125,5^\circ$	28	3.64 (2.40)		4.21 (2.77)		2.70 (2.85)		-1.02 (2.57)	

**Table 1.** Analysis of the relative differences (RD).

N, number of observations; Mean  $\pm$  SD, mean and standard deviation. P value, Student's t - test P value.