

AAO Foundation Award Final Report

Principal Investigator	Chris A. Martin, DDS, MS
Co-Investigator	Ryan VanLaecken
Secondary Investigators	Peter Ngan, Terry Dischinger, Thomas Razmus
Award Type	Orthodontic Faculty Development Fellowship Award
Project Title	TREATMENT EFFECTS OF THE EDGEWISE HERBST APPLIANCE: A CEPHALOMETRIC AND TOMOGRAPHIC INVESTIGATION
Project Year	2004
Institution	West Virginia University
Summary/Abstract (250 word maximum)	With the support of the 2004 Orthodontic Faculty Development Fellowship Award, I have achieved the proposed goal. Following 8 months of treatment (T1-T2), overjet improved by 8.4 mm compared to control group. The maxilla moved backward at point A by 1.4 mm and the mandible moved forward by 1.7 mm. Maxillary incisors moved lingually by 1.7 mm and mandibular incisors proclined by 3.6 mm. At T2, tomograms showed only 0.2 mm of forward condyle movement within the fossa. Sixteen months following Herbst removal (T2-T3), maxilla moved forward 1.2 mm, mandible relapsed posteriorly 0.7 mm. Maxillary incisors moved labially 1.7 mm and mandibular incisors moved lingually 3.3 mm. The net treatment effects (T1-T3) were an overjet correction of 2.7 mm with 85% contributed by skeletal corrections (1.3mm restraint in maxillary growth and 1.0 mm of forward mandibular growth as compared to controls).
Were the original, specific aims of the proposal realized?	Yes. Class II treatment results using the Herbst appliance are contributed to by both skeletal and dental changes with minimal changes in the position of condyles in the fossa.

<p>Were the results published? If not, are there plans to publish? If not, why not?</p>	<p>VanLaecken R, Ngan P, Dischinger T, Durkee M, Martin C, Razmus T. Treatment effects of the edgewise Herbst appliance: a cephalometric and tomographic investigation. AJODO 123:101, 2003</p>
<p>Have the results of this proposal been presented? If so, when and where? If not, are there plans to do so? If not, why not?</p>	<p>“Treatment of Class II Malocclusion with Crown Herbst Appliance: Clinical and Research Findings” AAO-Orlando, FL April 30-May 4, 2004</p>
