Influence of DI on Orthodontic Outcome Following
Selective Alveolar Decortication

A. Ahlawat*, D.J. Ferguson, O. Rajaei, W.M. Wilcko, & M.T. Wilcko

Introduction

Methods & Materials
Sample
DI scores were derived from archived records of 77 patients treated by Accelerated Osteogenic Orthodontics™ (AO™) by the same orthodontist (WM) and periodontist (MTW). Pre-treatment study casts and radiographs for the 77 subjects were grouped into 4 groups according to total DI score or severity: 1=0-9, 2=10-19, 3=20-29, and 4=30+. Data of Interest: Occlusion Relationship

Results
At Post Treatment (n=77)
Kruskal Wallis H-testing revealed statistical differences between DI severity groups: OGS Total Score group 3 vs group 1: 7.6 vs 1.7 (p<.001) group 3 vs group 2: 7.6 vs 2.2 (p<.001)

At Retention-1 (n=56)
Overjet group 3 vs group 1: 6.1 vs 2.2 (p<.02)

Occlusion Relationship

Discrepancy Index (DI) was released by the ABO as a measure of pre-treatment malocclusion severity. It is expected that orthodontic treatment outcome and retention success is related to severity of initial malocclusion

Conclusion
In the AAO™ sample studied, treatment of malocclusions with DI severity scores between 20 and 29 resulted in higher OGS scores for occlusion relationship at T1 and T2 and for overjet and OGS total scores at T2.