Effects of Extraction and Nonextraction Treatment on Class I and Class II Subjects

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Abstract: This study aims to examine the profile as well as the dentoalveolar and skeletal effects of extraction or nonextraction treatment in a wide range of patients including Class I and Class II, division 1 cases. Results achieved with extraction and nonextraction modalities have also been compared. The study was performed on pretreatment and posttreatment lateral cephalograms of 87 orthodontic patients. There were no significant differences between the pretreatment values of extraction and nonextraction Class I groups, whereas SN-GoGn (8), maxillary incisor to A-Po (8), mandibular incisor to A-Po (mm), Co-Gn (mm), overjet (mm), and overbite (mm) measurements of extraction Class II group were significantly higher before the treatment. After treatment, these differences were eliminated in the Class II group; however, incisors were significantly protruded in both nonextraction groups. No other differences in profile or lip position were found between the extraction and nonextraction groups. The results of this study indicate that in successfully treated cases, whether by extraction or nonextraction, the same soft and hard tissue profile posttreatment end points were reached except for the incisor positioning, which is rather easier to anticipate than profile and soft tissue changes. The simple statement that extraction means a more retrusive or dished-in profile seems to be unacceptable. It seems that a more thorough assessment and investigation including pretreatment extent of crowding and factors related to anchorage, soft tissue thickness, and strain should be carried out. (Angle Orthod 2003;73:36–42.)

Key Words: Extraction; Nonextraction