COMMENTARY

A COMPARISON OF STABILITY BETWEEN DELAYED VERSUS IMMEDIATELY LOADED ORTHODONTIC PALATAL IMPLANTS

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The use of temporary anchorage devices (TADs) in orthodontics has seen a dramatic increase over the recent years. In fact, this topic seems to be an increasingly prevalent one in orthodontic meetings and publications. It seems that the excitement surrounding this subject has at times outpaced sound research exploring it. This article is a step toward answering some of the many clinical questions that remain with regard to the use of TADs.

Jackson and colleagues explored the effect of immediate loading on the stability of one specific type of TAD, the palatal implant. The authors quantified implant stability using a novel technique involving resonance frequency analysis and showed that a period of healing prior to loading improved stability. It is important to remember that the term, temporary anchorage device, includes several distinct types of devices that have different clinical applications. Knowing this, the reader should not assume that these findings are transferable to other types of TADs.

This study is somewhat unique among others that explore the subject of implant-to-bone stability via histologic analysis in that it was able to provide quantitative data through a noninvasive approach. We are still trying to sort through exactly what measures define clinical success with these treatment modalities. Clinical success for these devices may be defined as simply as not falling out before the desired tooth movement was completed. Inherent in this definition is the concept of a range of clinical acceptability. This study aids in trying to quantify that range.

The authors suggest that the difference in implant stability between the two groups may not affect clinical success, and they should be commended for interpreting their results in the light of clinical significance. Their logical conclusions help to further our knowledge of a treatment approach that permits an otherwise impossible tooth movement.

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DOI 10.1111/j.1708-8240.2008.00175.x