EDITORIAL

Jump on our bandwagon—it's OK...

Recently, I attended an advanced education course that discussed state-of-the-art practices in dentistry, focusing on the latest trends to deliver high-quality, predictable care to patients. Many well-known educators and clinicians discussed the advantages of current technologies, including dental mini-implants. I was intrigued as I listened to a well-known clinician speak on the advantages of these devices and their use by general practitioners in daily clinical practices. Recently, much of the focus on placement of dental implants has developed into the concepts of immediate placement and immediate load. These concepts are relatively new and have been documented by several studies that substantiate their use.[1,2]

To date, research on the definitive use of mini-implants has not been conducted with comparable bodies of data, except for a few case reports.[3,4] These devices are advocated for stabilization of a denture and can serve very well on an interim basis. However, the industry continues to push for definitive use of these systems in blind flapless surgery, despite the lack of true clinical outcomes. Granted, many eligible patients may not have 6 mm of bone in the facial-lingual dimension. However, these systems often rely on the pilot drill to introduce two thirds of the length of the implant and the balance inserted by the self-tapping nature of the implant. This may work well for placement into alveolar bone, but if basal bone is encountered, driving the implant may strip out the osteotomy site and render the implant unstable. The introductory diameters of 1.8 mm may allow flexure of the implant when being used either in a non-parallel or distal extension situation (as advocated for a mandibular implant overdenture). However, flexure and micromotion will promote bone loss, non-integration, and possible fracture, rendering these less than satisfactory for long-term use. Being a single-piece implant, less flexibility exists for changing attachments as they wear with use. Flapless surgery may promote less postoperative discomfort and fewer soft tissue changes, but non-visualized surgery may not reveal anatomic restrictions and bony dehiscences/fenestrations. Other advantages for using mini-implants are less cost compared with traditional-diameter endosseous implants and retrievability in case of failure. However, the costs of the implants do not differ significantly from those of conventional implant surgery and the risks of placement are essentially the same. Admittedly, if the implant does fail it is easy to remove and causes minimal bone resorption, similar to the use of traditional-diameter implants vs comparably larger implants. Although if the implant fractures, another site should be selected to place additional implants.

Similar to the pharmaceutical companies' mass marketing of medications to make us happy, control arterial plaque, and regulate sleep and urination frequency, the dental industry has marketed mini-implants to the relatively uninformed public. It is clear that our industrial partners have focused their ads toward dentists desiring to expand the scope of their practice. This, in itself, is not detrimental to the practice of dentistry. Patients will continue to seek less-expensive and time-expedient techniques that offer the best possible outcomes. They rely on the expertise of a dentist to provide information on the outcome and risks of treatment. The accessibility of the literature on this treatment is relatively limited compared to the conspicuous advertisements in dental journals and lay publications, further clouding the decision on appropriate treatment. It is unfortunate that these devices are advocated as a definitive source of treatment despite the fact that no data exist to substantiate their validity! Sensationalism is prevalent and dentistry is not immune to this facet of our society, which profits off those who desire a microwave experience with their treatment. As QI's motto reminds us, treatment decisions must always be clinically relevant, *scientifically based*.

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