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Letters to the Editor

To the Editor:

I congratulate Dr. Ping-Yuen Fu on publication of his article in the August issue of *Implant Dentistry*, "Piezoelectric-assisted osteotome-mediated sinus floor elevation: An innovative approach,"[1] which presented a nicely illustrated modification of sinus floor elevation (SFE) using a crestal approach. As an author who has done research and published on crestal SFE, I noted inaccuracies and omitted references in the third paragraph on page 300, which states "The crestal core elevation method[2,3] is usually used for staged implant placement. Trephine with 5/6 internal diameter and one-third round core osteotome (H&H, Co., Ontario, Canada) are used."

It must be noted that Dr. Summers introduced the future site development (FSD) procedure as an alternative to the lateral window approach in the more severely resorbed posterior maxilla where there was inadequate crestal bone present for primary stabilization of implants.[4] All trephine/core SFE procedures are a modification of FSD. In the FSD procedure, the residual subantral bone is imploded in the form of a "plug" with the aid of wide diameter (5–6 mm) osteotomes and trephines as needed. The attached "plug" or core of native bone and added graft materials are used to elevate the sinus floor. Toffler's[5,6] crestal core elevation procedure and Fugazzotto's[2] modified trephine osteotome technique (MTOT) introduced modifications to the FSD technique to simplify the procedure, minimize membrane perforation, and improve bone quality and healing. Fugazzotto[2] suggested a calibrated trephine bur always be used to prepare the core to within 1 to 2 mm of the sinus membrane. This was recommended to reduce the malleting force necessary to apically displace the core. In the MTOT, a core is imploded to a depth 1 mm less than the original level of the sinus floor, in an effort to ensure that the core remains held in place by surrounding residual alveolar bone and contained beneath an intact sinus membrane. This particular approach is taken to not only help minimize the chances of sinus perforation and unpredictable core displacement but also limit the extent of the SFE to an amount slightly less than the residual subantral bone height. Toffler[6,7] suggested that using only trephine for core preparation as described in the FSD technique and the MTOT, it is difficult to uniformly prepare the core close enough to the sinus floor so that the core can be gently intruded with light malleting force. Trephine preparation is most certainly complicated by variations in the topography of the residual alveolar ridge and sinus floor that can lead to underpreparation at points along the core perimeter not allowing for easy, controlled intrusion of the core. Conversely, in an effort to more closely approach the sinus floor, additional trephine preparation can result in severe laceration of the sinus membrane and possible core removal or displacement into the sinus cavity. To further simplify core preparation and reduce the risk of membrane laceration, core osteotomes were designed to prepare the apical 1 to 2 mm of the core as it approximates the sinus floor. The one-third round core osteotomes directly infracture the sinus floor along the core's periphery significantly lessening the apical force required for core displacement. In addition, the incidence of membrane perforation is reduced, as the depth of trephine preparation required to implode the core is lessened. Neither Fugazzotto's MTOT[2] nor Soltan and Smiler's trephine bone core sinus elevation graft[3] uses a one-third round core osteotome. In addition, the instrument is made by H&H, Co., in Ontario, California, and not Canada.

The editorial staff at *Implant Dentistry*, published authors, and those hoping to publish are most certainly aware of the time and effort that goes into writing, research, and publishing. Therefore, you can appreciate the disappointment when this article work did not get properly referenced by the author. Your *Journal* has become my most anticipated read, publishing the most clinically relevant surgical and restorative articles on a regular basis. I look forward to future editions and hope to continue to submit articles that respectfully acknowledge my colleagues and meet the standards required for approved publication in your prestigious *Journal*.

Respectfully

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