Importance of cone beam computed tomography and ridge mapping gauge in determining the residual alveolar bone width for immediate implant placement

Sir,

With reference to an article published in a recent issue of your journal by Chandraker et al., there are some points that need clarification and also simplification of the technique described by them.

Accurate assessment of bone dimensions around an implant could best be done by the 3D imaging using computed tomography (CT). As rightly pointed out by authors, routine use of CT in dentistry is not accepted due to its cost, excessive radiation, and general practicality. However, cone beam CT (CBCT), which the authors have failed to mention in their list, is commonly used in recent years. Patient radiation dose is five times lower (29–477 µSv) than normal CT (approximately 2000 µSv), as the exposure time is approximately 18 s, i.e. one-seventh the amount compared with the conventional medical CT. Furthermore, the time required for image reconstruction takes approximately 1 min for CBCT.

However, if any of these diagnostic imaging facilities is not available at certain locations or the patient or doctor is not willing to get the scan done, then the technique described by the authors is very useful. To make the technique less cumbersome, the last step “scraping the cast in the labial and palatal region,” (as depicted in Figure 6 of the article) can be eliminated. After the 7th step, i.e. “transferring the ridge mapping reading to the sectioned cast,” (as depicted in Figure 5 of the article) a Vernier caliper can be used to measure the amount of bone available Figure 1.

Furthermore, the ridge mapping gauge (as shown in Figure 6 of the article) can be used directly into the socket to determine the cortical bone thickness. Since the beaks of the gauge are already sharp, they would penetrate the soft-tissue thickness [Figure 2]. One beak will stop at the outer surface of cortical plate and the other beak rests on the inner surface of the bone accessed through the socket formed immediately after extraction. In this way, we can eliminate all the impressions and plaster works and still be able to achieve our objectives.

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Conflicts of interest
There are no conflicts of interest.

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