Though a few more recent studies reported a successful crestal approach to the maxillary sinus floor elevation even when the residual ridge height is lower than 4 mm, the sinus management through a “blind” technique such as the BAOSFE in the presence of a very reduced bone height should be reserved only to very experienced surgeons.

Regarding the complications associated with sinus augmentation, Schneiderian membrane perforation was found to occur more frequently with a reduced ridge height mainly due to technical difficulties. It has also been suggested that a wider portion of the sinus membrane may have to be elevated when dealing with a smaller initial ridge height, which might produce an increased risk of sinus membrane perforation. Therefore, it seems reasonable and safer to recommend the LASFE technique when the residual ridge height is 4 mm or less and let the clinician decide, based on careful clinical and radiographic assessment, whether to adopt the crestal approach in the presence of at least 5 mm.

Regarding the adoption of SIs, again a careful evaluation of the residual bone height and width is mandatory. The rationale of using SIs is to avoid augmentation procedures, reducing patient’s discomfort; however, there must be sufficient residual volume to accommodate the implants ensuring primary stability. The fact that SIs with wide diameter can have a contact surface available for osseointegration which is comparable with longer ones with narrow diameter should be considered in the presence of wide bone crest. Moreover, SIs should be indicated in case of systemic conditions contraindicating more invasive surgeries. Finally, in the presence of pathology as chronic sinusitis, the involvement of sinus should be avoided and SIs could represent a valid treatment alternative to ear-nose-throat treatment and maxillary sinus augmentation.

CONCLUSIONS

The analyzed data suggested that SIs, OSFE (or BAOSFE), and LASFE had similar clinical outcomes. A larger volume of literature was available for LASFE while the long-term evidence for SIs is still scarce and more well-designed studies with a better description of implant demographics are needed for such treatment option.

Taking into account the current available evidence, the clinical indication for each of the three techniques is not strictly equivalent. LASFE should be considered the standard of care in cases of atrophic posterior maxilla even though OSFE can be considered a viable alternative when the need for bone volume increase is limited. In spite of the limited long-term evidence, SIs represent an appealing and successful alternative in the presence of a sufficient residual bone volume. They should be considered especially in those patients seeking for an alternative to more demanding bone augmentation techniques. In fact, patients’ wills and expectations, as well as the clinician’s confidence in specific techniques, should be taken into account in the treatment choice. Reduced invasiveness and shorter treatment times for prosthetic rehabilitations are important issues in favor of SIs together with the impossibility of performing LASFE or OSFE in cases of presence of sinus pathosis.

More data from high evidence-based and well-reported studies are needed to clarify the specific indications for each treatment.

REFERENCES


56. Garlini G, Redemagni M, Donini M, Maiorana C. Maxillary sinus elevation with an alloplastic material and implants:


81. Ardekian L, Oved-Peleg E, Mactei EE, Peled M. The clinical significance of sinus membrane perforation during
REFERENCES OF THE EXCLUDED STUDIES


REFERENCES OF THE EXCLUDED STUDIES


