

Review of: "[Mini Review Article] Practicality of Piezo Surgery in Periodontics"

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Potential competing interests: No potential competing interests to declare.

Review by Tomaso Vercellotti

Dear Colleagues,

Foreword

The topic of your article is of definite clinical interest because of the fundamental role of ultrasound in causal therapy in nonsurgical periodontics. It is well known that the use of an ultrasonic terminal, thanks also to the cavitation effect of the cooling liquid, allows the efficient and atraumatic removal of both bacterial biofilm and tartar from tooth surfaces. In the management of periodontal patients, it is therefore possible to achieve perfect debridement of root surfaces while preserving the integrity of the cementum. All this represents a great step forward in the restoration and, especially, in the management of periodontal health compared to what used to happen with the sole use of manual curettes, whose repeated use in root planing involved thinning up to the removal of root cementum.

Focus of the article

The focus of your article should therefore be to evaluate the efficiency of piezoelectric surgery in the bone surgery techniques of surgical periodontology. Piezosurgery (devised by me in collaboration with Mectron Medical Technology) is mainly dedicated to cutting bone, although it is possible to use it as a normal piezo-scaler on and off roots, excluding sonic over-modulation, as you have rightly pointed out.

The advent of Piezosurgery has actually introduced in bone surgery the routine use of micro-surgical techniques of reduced invasiveness and morbidity. These results occur because of the features of the principal characteristics of Piezosurgery: maximum intraoperative visibility and control, preservation of soft tissue, and a favorable response of healing mechanisms. All this is extensively documented in the international literature, with hundreds of articles and some literature reviews and meta-analyses up to a Consensus Conference whose results were published in the Journal of Oral Implantology in 2020 (4-22, Bassi et al), which you can find, along with other articles published by members of the International Piezoelectric Bone Surgery Academy, on the IPA website, scientific articles section.

Tips

I would recommend that you do a review of the article after going through the main articles of piezoelectric bone surgery in the various specialties (reading my book, *The Piezoelectric Bone Surgery: A New Paradigm* (Quintessence Int. Publisher),

might also help you.

For your article to be useful to the scientific community, I would recommend being very clear and essential in designing it. I would advise starting with a very significant basic consideration: in periodontal surgery, the extent of bone surgery is limited almost exclusively to the resective techniques of osteoplasty and peri-radicular ostectomy.

This means that it is an ideal situation to utilize the advantages of piezoelectric cutting in performing peri-radicular crestal bone osteoplasty while respecting the integrity of exposed root surfaces. To do this, there are special inserts that have improved the performance of classic manual Schlouger files.

I hope that this review of mine may be of help to you in improving the content of your article, and I remain at your disposal for further study as appropriate.

Good work,

Prof. Tomaso Vercellotti,

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