



The use of resorbable heterologous cortical lamina as a new sinus lift floor: a technical note

ABSTRACT

In case of necessity of a pre-implant bone regeneration by mean of a grafted biomaterial, it is necessary that such biomaterial remain stable in situ, without micro movements, for about six months. Some of these biomaterials, such as pre-hydrated and collagenated cortico-cancellous good-quality new bone. Unfortunately, they do not have the mechanical characteristics that would allow for stability in terms of shape and size. On the contrary, some grafting materials, such as heterologous porcine cortical lamina, have an excellent capacity in creating recipient sites that can be filled with cortico-spongiuous collagenated bone paste that reabsorbs, promoting new bone formation.

In this technical note, the Authors propose a technique for the reconstruction of a new rigid artificial sinus floor with the use of resorbable biomaterials of porcine origin: a cortical lamina in connection with pre-hydrated and collagenated cortico-cancellous porcine bone. The prerequisites necessary to carry out the technique are the stability of the lamina and the presence of a sufficient amount of graft granules in the site. For this technique, a rigid porcine cortical lamina was modelled and positioned in the sinus as a new sinus floor without hydration (OsteoBiol® Lamina, Tecnos®, Giaveno, Italy). A pre-hydrated and collagenated cortico-cancellous porcine bone was used as filling in the new space created by OsteoBiol® Lamina, palatal wall, mesial and distal bone (OsteoBiol® mp3®, Tecnos®). A porcine resorbable membrane was used to cover the graft in the vestibular side (OsteoBiol® Evolution, Tecnos®).

CONCLUSIONS

The adequate vascularisation of the graft combined with the integration of the lamina, which does not need to be removed, makes it possible to propose this technique as a potential alternative to those used so far. The Authors conclude: *“In our experience, it is possible to propose this technique as an alternative to those previously and currently in use. Additional clinical and histological scientific studies are needed to evaluate the effectiveness of the technique and further develop its potential”.*

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ORIGINAL ARTICLE
Journal of Biological Regulators and Homeostatic Agents
2016 Apr-Jun;30(2 Suppl 1):75-79

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