Implant dentistry has developed further over the last several years as a result of patient demand for aesthetic treatment. Augmentation of hard and soft tissue is increasingly necessary to achieve good aesthetic results and to follow a precise backward treatment plan. Nowadays, guided bone regeneration, the use of a barrier membrane that will separate and protect the grafting material covered by a flap, is the preferred technique among all augmentation procedures in the treatment of alveolar ridge defects.

At aesthetics ONE dental studios, we recently conducted a study based on our clinical cases. The purpose was to determine whether a ridge augmentation procedure using a resorbable collagen membrane deliberately left open to heal, that is not covered by a flap (open healing), could be an alternative for better bone preservation and new bone formation. We also wanted to establish whether it would increase patient comfort in daily practice compared with the classic guided bone regeneration protocol.

For the study, radiographs, CBCT scans and measurements were taken preoperatively, immediately postoperatively, as well as after six and 12 months, in order to determine the bone preservation and formation at each point and to integrate the results with the clinical outcome. We found that the bone volume was preserved in height and width for an ideal second-stage flapless implant placement after six months with bone preservation of 98.9 ± 0.7% compared with initial measurements.

In all of the cases we performed bone grafts without deperiostation and flap mobilisation, covering the augmented area from the beginning with only a resorbable collagen membrane and suturing it to the wound edges in order to fix it in a stable position using a PTFE suture (Coreflon, Implacore). We followed the same procedure for both aesthetic and posterior zones. Owing to its unique properties, the PTFE suture contributed to adequate tissue healing with minimal micro-damage reaction and bacterial colonisation. It also increased patient comfort by very good adaptation to the volume of tissue in all its healing stages. We therefore consider the use of a continuous suture with Coreflon the gold standard in the open healing protocol.