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Re: Mandibular wing osteotomy: technical modification

Sir,

My compliments to Coopman et al on their recent paper.¹ I am familiar with the “chin wing” and its technical issues because I worked with Albino Triaca in the Klinik Pyramide in Zürich while it was being developed, and I wish to raise a point that is crucial for the success of the operation.

It is true that the main complication of the procedure is the risk of injury to the inferior alveolar nerve, and the advantages of a cutting guide to help with the orientation within the incision seem obvious. It is more important, however, to make sure that the entire periosteum is not detached from the lower border of the mandible, and that as much soft tissue as possible is left fixed to it.

The lateral side and the angle of the mandible should be exposed just to the height of the future osteotomy and not beyond, otherwise a large distal fragment would be created on both sides of the wing, which would be completely isolated from the blood supply. This could lead to a considerable risk of bony resorption that would compromise the entire procedure. By detaching the soft tissue in the lateral and distal parts, one of the essential aesthetic advantages of the chin wing would be lost, and the operation would be reduced to a conventional genioplasty. The soft tissue and the insertions of the facial muscles would not be able to follow the movement of the underlying bone, and instead would be pulled and stretched, reducing their effect on the definition of the jawline.

The use of a cutting guide that is wrapped around the entire lower border of the mandible would lead to all the disadvantages described. It cannot be recommended, in my opinion, because a lack of technique could unnecessarily put into question a valuable method.

The mandibular wing osteotomy is a safe procedure and a powerful tool that achieves good aesthetic results, but it is not a procedure for beginners. There is of course a learning curve as for all operations, but if we choose the right patients and present a favourable anatomical position of the nerve (running on the higher and lingual side of the mandible, which is simple if 3-dimensional imaging and planning is used) the obstacles can be overcome without any need for additional technical expedients.

Conflict of interest

I have no conflicts of interest.

Ethics statement/confirmation of patients' permission

No ethics approval required. No patients' permission required.

Reference

1. Coopman R, Aerden T, DeTemmerman G, et al. Mandibular wing osteotomy: technical modification. *Br J Oral Maxillofac Surg* 2017. Epub ahead of print.

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Re: Re: Mandibular Wing Osteotomy: technical modification

Sir,

We thank Dr Brusco for his interest in our recent paper and for his valuable comments on the use of 3-dimensional printed cutting guides for use with the chin wing technique of osteotomy. His concerns are well-founded, but while we also wish to gain the best aesthetic result, we think that the introduction of new techniques to minimise the risk of permanent damage to the inferior alveolar nerve should not be avoided, particularly at a tertiary centre that trains residents as one of its main purposes.

The technique that we described was influenced by lessons learned from the bilateral sagittal split osteotomy. During the osteotomy, to put two osteosynthesis plates into place, we stripped the proximal fragment from the soft tissues over a considerable length, and then stripped the buccal plate both at the cortical and inner sides. We did not see excessive pseudarthrosis, or necrosis as a result of these procedures.¹ This was probably because of the non-critical distance between the proximal and distal fragment, the size of the contact area, and the use of bone grafts or bone-void fillers whenever the contact size was deemed critical. We showed a difference in healing between grafted and non-grafted gaps, where the non-grafted sites had induced a defect at the lower border.^{2,3}

For these reasons, we decided to graft the area between the proximal segment of the chin wing and the mandibular lingual site. The oblique nature of the osteotomy allowed for a