New perspectives in the treatment of severe mandibular atrophy: “double sandwich” osteotomy

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A horizontal osteotomy of the edentulous mandibular bone is then made with a thin bur or piezoelectric saw. The osteotomy is finished by 2 (mesial and distal) slightly divergent vertical osteotomies (Fig. 1). The bone fragment, which remains anchored to the lingual and crestal periosteums, is raised cranially with a Gillies hook so that it “faces” the operator (Fig. 2). At this point, a second horizontal osteotomy is made to divide the freshly cut surface into 2 fragments: the first (the former buccal aspect), which remains attached to the crestal periosteum, becomes the roof of the defect, and the second (lingual aspect), which remains attached to the

Operative technique

A full-thickness incision is made buccally 1 mm below the mucogingival line. Soft tissues are tunnelled cranially in a subperiosteal plane. Moderate lateral extension of the subperiosteal dissection facilitates eventual mobilisation of the cut bone. However, the crestal periosteum must be preserved to ensure adequate vascularisation of the future cranial segment.

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