LEFORT I osteotomy, classical and total alveolar technique and management of posterior interferences in large maxillary impactions

Authors :

Q Goguet, M Praud, P Corre, JP Perrin

Institutions :

Clinique de Stomatologie et Chirurgie Maxillo-Faciale, CHU de Nantes, France

Abstract :

Vertical stability of the maxilla after total Lefort I osteotomy may be compromised by intraoperative misjudgment of bony interferences during maxillary positioning and osteosynthesis, and by reduction of nasal cavity volume in large ascensions. There is then a risk of deterioration of the facial and occlusal balance obtained.

In the case of mandible-guided maxillary positioning (with or without a splint), a perfect centric relationship of the mandibular condyles is necessary for the surgeon during osteosynthesis. In large maxillary ascensions, the Lefort I horseshoe osteotomy (or maxillary alveolar osteotomy) represents an alternative to total maxillary osteotomy because it allows preservation of the volume of the nasal cavity and harmonization of the shape of the bony palate.

The objective of this workshop is to provide you with tips on how to search for and eliminate posterior bony interferences (pterygoid, maxillary, vomerian) and to discover the basics of the Lefort I horseshoe osteotomy on a 3D model.

A detailed description of this technique and the learning of preoperative 3D planning will allow the identification of the operative risks, in particular the risks of injury to the posterior palatal pedicle and the palatal roots of the maxillary molars. The clinical results of the largest series of patients operated on using this functional osteotomy technique will be presented.