

LITERATURE ABSTRACTS :

R. E. STRAITH and J. M. LAWSON—Surgical orthodontia: a new horizon for plastic surgery. *Plastic and Reconstructive Surgery*, vol. 39, No. 4, April 1967, pp. 366-372.

The type of condition considered is a severe maxillary dental protrusion or prognathism. The criteria for selection of patients were as follows:—

1. preference: for 'those patients where orthodontic techniques have less to offer'; the bony deformity is severe, or there is inadequate posterior anchorage for orthodontic appliances.
2. age: those patients who have attained adult maxillary growth and anterior tooth development.
3. time and economic factors: these would rule out conventional orthodontic treatment.
4. emotional make-up of the patient: the patient must have realistic motivation and 'maturity to cope with the rigorous post-operative period' and also to give attention to oral hygiene and care.

The surgical management was discussed and various requirements for different malocclusions reviewed in case reports. These ranged from osteotomies allowing complete posterior repositioning of the maxillary anterior alveolar segment containing teeth, to osteotomies for repositioning of individual teeth such as a first premolar and a central incisor tooth. The five cases reported were examined from 2 months to 42½ months post-operatively, and results were uniformly satisfactory. Loss of tooth sensation did not always occur and for those that were so affected sensation returned within three months. (Apparently no rigorous tooth vitality checks were carried out, it merely being noted that 'in only one tooth has there been slight tooth discolouration').

10 references.

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WILLIAM H. WARE and ROBERT C. TAYLOR—Growth centre transplantation to replace damaged mandibular condyles.

J.A.D.A., Vol. 73, No. 1, July 1966, pp. 128-137.

Since the cartilaginous condylar cap is the major growth centre of the mandible, pathosis in this region can be critical, and the resulting deformity is usually severe and progressive as growth of the upper face continues.

Decreased condylar growth can be traumatic, inflammatory or congenital. The deformity may be present at birth, but may not be obvious until differential growth occurs.

Unless ankylosis is present, feeding is usually not a problem, except in the Pierre-Robin syndrome (underdeveloped mandible, palatine cleft and glossoptosis). Differential facial growth tends to correct this deformity. It would be proper to consider the developmental potential delayed rather than absent in this syndrome.

Mandibular condylar deficiencies may be corrected in three ways:—

1. Correction on completion of upper facial growth.
2. Mandibular lengthening procedures at selected times during growth.
3. Transplanting a cartilaginous growth centre as soon as it becomes known that condylar growth is lacking.

In this study the third method is considered. Two donor sites were used, the fibular head and the costo-chondral junction. Of the two, the latter seemed easier to obtain and adapt. Four cases were reported, all being children with severe and progressive deformities caused by either ankylosis or condylar agenesis.

Results were encouraging, but cannot be evaluated until facial growth of these patients is complete.

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