

MORPHOMETRIC BASIS FOR CORRECTION OF SECONDARY
MANDIBULAR DEFORMITIES IN UNILATERAL
TEMPOROMANDIBULAR JOINT ANKYLOSIS

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Facial deformity produced by temporomandibular joint ankylosis is manifestation of both growth deficits and also abnormal growth patterns. The etiology of this complex morphological disturbance is multifactorial. The loss of growth at the condyle significantly affects mandibular growth, and absence of functional stimulus due to hypomobility of the jaws leads to an abnormal positioning of the jaw musculature resulting in disturbance to the process of remodelling. In addition the locking of the maxillomandibular occlusion further alters the pattern of growth in the craniofacial complex.

The combined effect of skeletal deficiency, distortion and displacement on the affected side produces a complex abnormality involving the entire facial skeleton and soft tissues. Obwegeser and Hadjiaghelou have suggested the term asymmetric "Bird face deformity" to represent the abnormality, characteristic of

unilateral temporomandibular joint ankylosis²².

Numerous protocols for management have been advocated and tried with partial success. This could be largely attributed to the fact that none of these protocols are based on an anatomical understanding of the specific characteristics of each of the components of the deformity.

With the emergence of the morphometric concept of facial correction it has now become possible to address and reverse individual deformities to produce good, esthetically stable results. Using this concept we have been correcting the secondary deformities associated with temporomandibular joint ankylosis for the past 4 years³⁰.

Morphometric corrections require a precise knowledge of the site, extent and nature of the deformity. It is also necessary to predict the shape, form and