

Surgical Design and Guideline for Cleft Orthognathic Surgery

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Surgery-First Approach to orthognathic surgery (SFAOS) has been practicing in the Craniofacial Center, Chang Gung Memorial Hospital since 1988. SFAOS could be carried out in cleft lip and palate patients even their dental crowding and malocclusion is more severe than non-cleft patients. Most cleft patients who need orthognathic correction might have midface retrusion associated with relatively prognathic mandible, anterior and posterior cross bite, dental crowding, alveolar cleft, missing of upper lateral incisor, dental midline deviation, rotation and tilting of upper incisor on the cleft side, nasal and lip deformity, inversion of upper lip and eversion of lower lip long lower face etc..

SEAOS is planned to correct jaw deformities/discrepancies with minimum preoperative orthodontic treatment. SFAOS is aimed to achieve the best facial esthetic for each individual patient. The postoperative orthodontic treatment usually takes another 6-12 months to detail the dental interdigitation. SFAOS has provided a cost-effective procedure to accomplish better facial esthetics, oral function and dental occlusion in the correction of maxillo-mandibular discrepancy for cleft lip and palate patients.

Update on Surgery-First Approach in Patients with Cleft Deformities

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Patients with cleft lip and palate often develop midface retrusion requiring orthognathic surgery to advance maxilla. The conventional surgical procedure to correct maxillary retrusion is a Le Fort I advancement. However, straight forward Le Fort I advancement could move the nasal base forward and create the piggy nose appearance in the cleft patient. A clockwise rotation of maxillary complex is developed to gain the maxillary fullness without distorting the nasal morphology. The long term stability will be reviewed for this new approach to justify the effects on facial esthetics and oral function.