J Otol Rhinol 2018, Volume 7
DOI: 10.4172/2324-8785-C3-015

Surgical correction of the Midface in Craniofacial Microsomia. Part 1: A systematic review.

Lara S. van de Lande
Great Ormand Street Hospital, United Kingdom

Purpose: Mandibular reconstruction in craniofacial microsomia (CFM) has been described and reviewed at length although final results are not always (aesthetically) satisfactory due to maxillo-mandibular asymmetry, for which optimal correction techniques remain unclear. The aim of this systematic review is to provide an overview of the surgical options for maxillary correction in patients with unilateral CFM.

Material and Methods: MEDLINE/Pubmed, Embase, Cochrane and Web of Science databases were searched up to April 15, 2017. Inclusion criteria were: studies reporting patients with unilateral CFM (n>4) who had maxillary correction (with/without simultaneous mandibular correction) with a minimal follow-up of 6 months. The outcome measures included type of treatment (including preceding facial procedures), type and severity of mandibular deformity (by Pruzansky-Kaban system: Types I/IIa/IIb/III), asymmetry analysis method, outcome (i.e. occlusion, canting, stability, esthetic result, facial symmetry), complications and additional treatment needed.

Results: Nine studies met the inclusion criteria. Analysis showed that Le Fort I + mandibular distraction osteogenesis (LeFort+MDO) and BiMaxillary osteotomy (BiMax) were used for treatment, as single or multiple-stage procedures. All studies reported aesthetic and functional improvement.

Conclusion: Types I/IIa benefited from LeFort+MDO; Type IIb from LeFort+MDO or BiMax; and Type III from BiMax (with 50% of cases having preceding mandibular procedures, including patient-fitted prosthesis) at a mean age of 20.2 years. Four studies recommended additional (esthetic) procedures.

laravandelande@gmail.com