

Reconstruction of Congenital Craniofacial Nasal Deformities

Yu-Ray Chen, MD

Chang Gung Memorial Hospital and Chang Gung University, Taoyuan, Taiwan

Congenital nasal deformities include cleft lip/palate nasal deformity, rare facial clefts, Binder's syndrome and nasal atresia. Cleft lip/palate nasal deformity has extensive reports regarding to alar reposition, columella support and dorsum augmentation with autogenic cartilage or alloplastic materials. Personally, I prefer rib bone cartilage graft for the dorsum augmentation and rib cartilage for the columella support.

Rare facial cleft involves nose in Tessier No. 1-14, 2, and 3. Tessier No. 1-14 or orbital hypertelorism or bifid nose has different forms of presentation. The skin over the nose can be ripple with irregular cartilage immediate under the skin. These can be corrected or excised in early years of life. The orbital hypertelorism usually be corrected at the age after 5 years. The skin over the deformed nose can be stretched and bone or cartilage graft should be fixed to the reconstructed nasal ridge after orbital box was reduced to a normal distance.

Binder's Syndrome or maxillo-nasal dysplasia presents with hypoplasia of cartilaginous nasal septum and premaxilla, usually there is absence of anterior nasal spine. The deformities can be corrected with rib cartilage graft fixed to the pyriform area along with dorsum and columella augmentation.

The nasal atresia reconstruction needs skin flap to mimic the mucosal lining of the nasal airway, the bony support of the dorsum and the expended skin envelope. The reconstruction can be many stages and should be started early so that the patient can have better psychosocial life in their school life.