



Presurgical nasal molding in infants with cleft lip and palate – first results from Rostock

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Aim:

Literature shows that the nasal cartilage in patients with total clefts can be molded using active force during early postnatal life. Lengthening of columella and remodelling of the nasal tip is possible. In order to enhance our presurgical orthopaedic treatment concept nasal molding was performed in our department for the first time in July 2004.

Material and method:

In three patients with unilateral and one patient with bilateral cleft our conventional presurgical alveolar growth supportive treatment with removable appliance was modified using adjustable nasal stents. The plate was readjusted every three weeks, meanwhile the nasal stent was reactivated. Intraoral forces were the only means of retention in unilateral cases. The bilateral case received later on taping for lengthening the upper lip. Treatment induced changes of the nasal shape were documented by standardized photos. The nasal stents retained the gained morphology till primary surgery took place at age of 6 months.

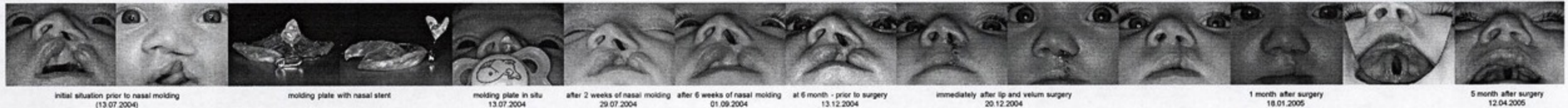
Results:

Beside the known effects of presurgical treatment like cleft size reduction and enlargement of jaw segments the nasal stent has obviously lengthened the columella on cleft side. The nasal tip projection and the nasal wings have become more symmetrical. The nostril on cleft side has widened. Initial changes of the nasal shape had been already observed three weeks after treatment start. The observed changes are expected to have a permanent stability.

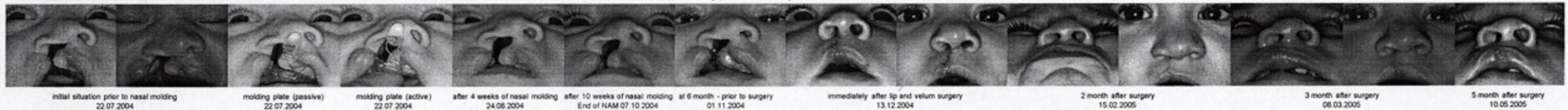
Conclusion:

Combination of alveolar and nasal molding improves the therapeutic presurgical spectrum. In this way a tremendous influence on facial esthetic is possible. By the time of the first surgery a better physiological shape of the alveolus and the nasal skeleton can be gained using nasoalveolar molding technique. This might significantly improve the results of the primary surgery regarding the shape of the nose. Therefore a complicated secondary operation of the nose might be avoided or at least simplified.

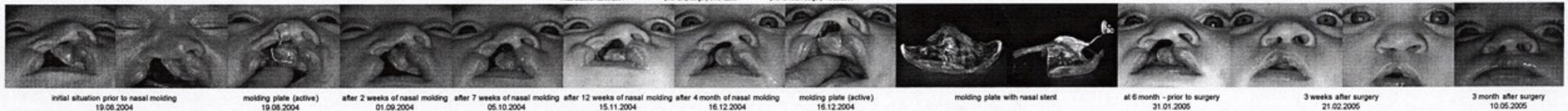
Case I – incomplete CLAP left (hShaL) (Thorben T. * 13.06.2004)



Case II – complete CLAP right (LAHS) (Malte W. * 29.05.2004)



Case III – complete CLAP right (LAHS) (Max-Lukas P. * 01.08.2004)



Case IV – bilateral CLAP (LAHSHAL) (Isabell G. * 12.12.2004)

