

Management of Unilateral Complete Cleft Lip and Palate

Javadian, D, Zee, RYL, Loo, CY, Laskou, M (Tufts University School of Dental Medicine, Boston, MA)

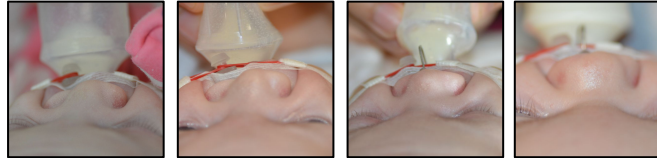
INTRODUCTION

Cleft lip occurs when medial nasal prominences fail to fuse with the medial aspect of the maxillary process. Cleft palate occurs when the palatal shelves fail to fuse. Cleft lip may be unilateral or bilateral, and can occur with or without cleft palate. Children with cleft lip and palate will have the lip repaired around 3 months of age, and the palate repaired by one year. An interdisciplinary cleft lip/palate team is needed to properly treat and manage these children. Nasoalveolar molding (NAM) device helps shape the alveolar ridge and the flattened nose to improve symmetry while potentially decreasing the number of future surgeries needed to enhance aesthetics.

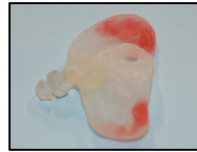
CASE REPORT

This case report follows a healthy newborn female with non-syndromic unilateral complete cleft lip and palate undergoing nasal alveolar molding at Tufts University School of Dental Medicine Pediatric Dentistry, followed by cleft lip repair by Tufts Medicine Pediatric ENT.

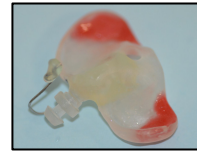
NASAL MOLDING



NAM



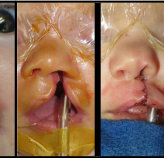
NASAL STENT



TIMELINE

- ❖ 8/14/23 – Date of birth
- ❖ 8/18/23 – Consultation and initial impression for fabrication of NAM appliance (4 days old)
- ❖ 8/24/23 – Base plasters placed on cheeks with lip tape, NAM molding with red acrylic resin (10 days old)
- ❖ 8/30/23 – NAM button attached to appliance and adjusted, appliance delivered and activated (16 days old)
- ❖ 9/6/23 – NAM molding with red acrylic resin,
- ❖ nasal molding initiated with addition of 0.36 stainless steel wire engaged in left antero-medial nasal rim (23 days old)
- ❖ 9/18/23-10/16/23 – Follow up visits for NAM molding with red acrylic resin (1 month & 2 days old)
- ❖ 10/23/23 – No more activation, patient is in maintenance phase (1 month & 9 days old)
- ❖ 10/27/23 – Primary lip closure surgery with ENT (2 months & 13 days old)

PRE-OP



POST-OP



BIRTH

8 MOS

CONCLUSION

Management of cleft lip and palate is multifactorial and requires a pediatric dentist part of a craniofacial team to ensure comprehensive care of the patient. The NAM appliance allows reshaping of the soft and hard tissues, aiding in aesthetics and function during the treatment of cleft lip and palate.

REFERENCES

- American Academy of Pediatric Dentistry. Policy on the management of patients with cleft lip/palate and other craniofacial anomalies. The Reference Manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2023:70.
- Ahmed MM, Brecht LE, Cutting CB, Grayson BH. 2012 American Board of Pediatric Dentistry College of Diplomates annual meeting: the role of pediatric dentists in the presurgical treatment of infants with cleft lip/cleft palate utilizing nasoalveolar molding. *Pediatr Dent.* 2012 Nov-Dec;34(7):e209-14. PMID: 23387096.