

# COMPARATIVE STUDY OF NASOALVEOLAR MOLDING METHODS: DYNACLEFT PLUS NASAL DEVICE VERSUS NAM

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**OBJECTIVE:** To compare nasoalveolar molding effect employing DynaCleft plus a nasal device versus NAM system in patients with complete unilateral cleft lip and palate.

**METHOD:** This prospective study was performed in two groups. In Group A, 20 consecutive newborn patients with unilateral complete cleft lip that were treated during 2009-2010 with an elastic adhesive tape on the lip (DynaCleft) and a nasal device before the lip surgery. In Group B, 20 patients were treated with the NAM system during 2007-2009. In both groups maxillary casts and basal standard photos were done before and after treatment. Columellar angle, soft tissue distance of the cleft, intercommisural distance, nostril height and width were traced and measured on the printed photos, and a ratio was obtained and compared before and after the procedure. Alveolar cleft, intercuspid, intertuberosity and anteroposterior distances were measured in the cast and compared.

**RESULTS:** The DynaCleft was started at  $11.3 \pm 11.8$  days and continued for  $104 \pm 19.6$  days. NAM began at  $17 \pm 6.8$  days and lasted  $118 \pm 27.3$  days. No complications were observed in either method. In Group A, the initial average of the alveolar cleft in the cast was  $10.7 \pm 3.8$ mm and was  $6.6 \pm 3.4$ mm at conclusion. For Group B these distances were  $11.2 \pm 3.0$ mm and  $5.9 \pm 2.6$ mm. No differences were found in the intertuberosity, intercuspid and A-P distance of both groups. The mean columellar angle in Group A before treatment was  $38.1^\circ \pm 12.4^\circ$ , and after  $61.5^\circ \pm 19.7^\circ$ . Group B  $33.6^\circ \pm 9.4^\circ$ , and after,  $59.5^\circ \pm 11.4^\circ$ . Mann Whitney and Student statistical analysis results were  $p > 0.05$ . Width and height dimensions of the nostril showed minor differences after the procedures in both groups.

**CONCLUSIONS:** DynaCleft, with a nasal device, compared with the NAM method, have almost identical effect in reducing the magnitude of the alveolar cleft in the maxilla and improving the nasal deformity.

## CASE TREATED WITH DYNACLEFT AND NASAL DEVICE



Case photos courtesy of Dr. Luis Monasterio, FUNDACIÓN GANTZ, Hospital del Niño con Fisura, Chile.  
Nasal stent hand-fashioned using paper clips and Teflon® tape.

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