

Use of Nasal Conformer after Birth Effectively Improves Nostril Symmetry in Patients with Unilateral Incomplete Cleft Lip

Faye Huang, Spencer C H Kuo, Jui-Pin Lai, Ching-Hua Hsieh

Department of Plastic and Reconstructive Surgery, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine, Kaohsiung, Taiwan

Purpose:

To investigate the clinical effects of preoperative nasolabial molding (NAM) and nasal conformer use in patients with unilateral incomplete cleft lip on the basis of their medical records and images.

Patients and Methods:

Data and images of 16 patients born with unilateral incomplete cleft lip who were hospitalized between January 2015 and August 2017 were retrieved from the medical records. The primary outcome was the extent of improvement in columella height (CH) before cheiloplasty. Other outcome measurements included the CH, nostril width, and nostril height, which were measured by ImageJ image processing software (version 1.4; National Institutes of Health, Bethesda, MD) and presented as ratios. Mann-Whitney U tests were used to compare the non-normally distributed data.

Results:

Patients in the NAM group and those in the nasal conformer group showed significantly improved ($P < .05$) preoperative cleft-side CH-to-normal-side CH ratios compared with the corresponding ratios at birth. There was no significant difference in terms of the extent of improvement in CH between the groups.

Conclusions:

Preoperative use of nasal conformers in patients with unilateral incomplete cleft lip not only corrects the deformed nasal cartilage but also increases the CH and improves the overall preoperative nasal symmetry. In addition, compared with NAM, this method costs less, is more straightforward, and requires fewer outpatient clinic visits.