

Esthetic Evaluation of the Facial Profile in Rehabilitated Adults With Complete Bilateral Cleft Lip and Palate

Flávio Mauro Ferrari Júnior, MD,* Priscila Vaz Ayub, MD,†
Leopoldino Capelozza Filho, PhD,‡ José Roberto Pereira Lauris, PhD,§
and Daniela Gamba Garib, PhD||

Purpose: To assess the facial esthetics of patients with complete bilateral cleft lip and palate, and to compare the judgment of raters related and unrelated to cleft care.

Materials and Methods: The sample comprised 23 adult patients (7 women and 16 men) with a mean age of 26.1 years, rehabilitated at a single center. Standardized photographs of the right and left facial profile were taken of each patient and subjectively evaluated by 25 examiners: 5 orthodontists and 5 plastic surgeons with expertise in oral cleft rehabilitation, 5 orthodontists and 5 plastic surgeons without expertise in oral cleft rehabilitation, and 5 laypersons. The facial profiles were classified into 3 categories: esthetically unpleasant, esthetically acceptable, and esthetically pleasant. Intraexaminer and interexaminer agreements were evaluated with the Spearman correlation coefficient and Kendall coefficient of concordance. The differences between rater categories were analyzed using the Student-Newman-Keuls test (with $P < .05$ indicating a statistically significant difference).

Results: Most of the sample was classified as esthetically acceptable. Orthodontists and plastic surgeons related to oral cleft rehabilitation gave the best scores to the facial profiles, followed by layperson examiners and by orthodontists and plastic surgeons unrelated to oral cleft rehabilitation. The middle third of the face, the nose, and the upper lip were frequently pointed out as contributors to the esthetic impairment.

Conclusions: The facial profile of rehabilitated adult patients with complete bilateral cleft lip and palate was considered esthetically acceptable because of morphologic limitations in the structures affected by the cleft. Laypersons and professionals unrelated to oral cleft rehabilitation seem to be more critical regarding facial esthetics than professionals involved with cleft rehabilitation.

© 2015 Published by Elsevier Inc on behalf of the American Association of Oral and Maxillofacial Surgeons

J Oral Maxillofac Surg 73:169.e1-169.e6, 2015

The human face is considered the most important factor in individual attractiveness.¹ Considering that the maxillomandibular relationship, skin aspects, and facial proportions and symmetry are some of the important features that contribute to facial esthetics,^{2,3}

individuals with cleft lip and palate (CLP) have problems with their esthetic condition because of the obvious modifications in this facial area.⁴⁻⁶ The scar to the upper lip, the nasolabial dysmorphology, and the maxillary growth deficiency impair facial

*Orthodontist, Private Practice, and Coordinator, Interceptive Orthodontics Course, Society for the Social Promotion of the Cleft Lip and Palate Patient, Bauru, São Paulo, Brazil.

†Masters Student, Hospital for Rehabilitation of Craniofacial Anomalies, University of São Paulo, Bauru, Brazil.

‡Professor of Orthodontics, Oral Biology Department, University of Sagrado Coração, Bauru, Brazil.

§Professor, Department of Public Health, Bauru Dental School, University of São Paulo, Bauru, Brazil.

||Associate Professor of Orthodontics, Hospital for Rehabilitation of Craniofacial Anomalies and Bauru Dental School, University of São Paulo, Bauru, Brazil.

Address correspondence and reprint requests to Dr Ferrari Júnior: Rua Rio Branco, 20-81, 17014-037, Bauru, São Paulo, Brazil; e-mail: fferrari@travernet.com.br

Received June 3 2014

Accepted September 16 2014

© 2015 Published by Elsevier Inc on behalf of the American Association of Oral and Maxillofacial Surgeons

0278-2391/14/01489-X

<http://dx.doi.org/10.1016/j.joms.2014.09.012>

esthetics of individuals with CLP and often interfere with their self-esteem and sociability.⁷⁻¹⁵

Patients with bilateral cleft lip and palate (BCLP) usually present with retropositioning of the midface with a moderate reduction in the midface height and a retrognathic type of face.¹⁶ Esthetic results achieved for complete BCLP are less favorable than those for unilateral CLP, most likely because of the nature of the bilateral cleft, that is, the intrinsic deficiency and the displacement of tissue, as well as the common final rehabilitation results such as maxillary hypoplasia, an obtuse nasolabial angle, and poor speech.¹⁷ The esthetic limitations in patients with BCLP may result in negative psychosocial consequences.⁸ Despite the numerous surgical procedures that aim to improve facial esthetics, BCLP patients are usually unsatisfied with the appearance of their upper lip and nose.¹⁸⁻²³ The asymmetry of the midface found in all patients with CLP exerts a negative influence on how the facial appearance is self-perceived or perceived by others.^{15,24} According to Semb et al,²⁵ patients with CLP have reported that the nose and lip appearance causes most of the dissatisfaction when compared with speech, appearance of teeth, and facial appearance. In addition, boys were more dissatisfied than girls on this matter.²⁵ From the patient's perspective, the esthetic concerns are greater than the functional concerns.¹⁸

Self-esteem is influenced by self-perception of appearance. Individuals tend to perceive their own beauty better than other people's judgment.²⁴ Professionals' opinions are influenced by training and experience and may influence patients' and parents' perceptions of the need for treatment.²⁴ Laypersons without previous knowledge of the problem have more valid opinions than cleft-related groups such as parents or professionals because laypersons are not involved with the challenges and expectations of rehabilitation.²⁶ In addition, laypersons represent the wider community and peers with whom patients will be in contact throughout their lives.²⁷

The assessment of the final facial esthetics of patients with CLP aims to evaluate the quality of treatments delivered and contribute to create rational, efficient protocols that are highly recommended by the World Health Organization.²⁸ The purpose of this study was to assess the facial esthetics of adult patients with BCLP rehabilitated at a single center, as well as to compare the judgment of raters related and unrelated to cleft lip care. The null hypothesis is that laypersons and raters with and without expertise in cleft care evaluate facial esthetics of patients with BCLP in a similar way.

Materials and Methods

This study was approved by the ethical committee (No. 006/2004), and informed consent was obtained.

The study sample comprised 23 rehabilitated adults with complete BCLP who were consecutively selected from February to November 2004 at the Department of Orthodontics, Hospital for Rehabilitation of Craniofacial Anomalies (HRCA), University of São Paulo (USP), Bauru, Brazil. The selection was performed during post-treatment follow-up appointments. The following inclusion criteria were considered: minimum age of 18 years, white Brazilian patients, absence of associated syndromes, and complete rehabilitation performed at a single center. The sample included 16 men and 7 women with a mean age of 26.1 years (range, 19.2 to 41.7 years).

All patients were operated on by the plastic surgeons of the HRCA-USP team following the current protocol of the hospital, which includes 1-stage lip repair with the Spina technique at 3 to 6 months of age and palate repair with the Von Langenback technique at 12 months of age. The protocol also includes a secondary bone graft procedure at 10 to 11 years of age and orthognathic surgery at 18 years of age for cases rated 4 or 5 according to the Goslon yardstick.²⁹ When necessary, secondary lip repair is performed at 7 years of age. A nose review is performed after orthognathic surgery or at 14 years of age for patients with no need for orthognathic surgery. In our sample, 7 of 23 patients underwent orthognathic surgery and the remaining 16 were treated only with orthodontics. Patients treated with orthognathic surgery underwent Le Fort I osteotomy with maxillary advancement.

Photographs were taken by a standardized method. Patients were positioned standing in a cephalostat with the natural head position in front of a white background. An umbrella-type flash with a photocell was placed 1.3 m from the cephalostat and 0.51 m above the ground. The distance between the light source and the cephalostat was 0.80 m. A Nikon Coolpix 995 digital camera (Nikon, Tokyo, Japan) was placed 0.87 cm away from the wall, and its support for height adjustment ranged from 1.02 to 2.18 m.

Looking at a mirror in front of the cephalostat, patients remained in the natural head position.²¹ Patients were instructed to have the teeth occluded and the lips relaxed. Images of the facial profile on the right and left side were obtained for each patient. The images obtained were transferred to a Hewlett-Packard Brio/Intel Pentium II MMX 300-MHz system with 64 MB of RAM (Hewlett-Packard, Palo Alto, CA) and printed in a 10 × 15-cm size.

The photographs were evaluated by 25 examiners divided into 5 groups: 5 orthodontists with experience in oral cleft rehabilitation, 5 orthodontists with no experience in cleft treatment, 5 plastic surgeons with experience in oral cleft rehabilitation, 5 plastic surgeons with no experience in cleft treatment, and 5 laypersons (1 veterinarian, 1 engineer, 2 lawyers,

Download English Version:

<https://daneshyari.com/en/article/3153296>

Download Persian Version:

<https://daneshyari.com/article/3153296>

[Daneshyari.com](https://daneshyari.com)