

# Primary Bilateral Cleft Lip Repair A 3-DIMENSIONAL MORPHO-FUNCTIONAL APPROACH

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# Cleft Lip Defect

Where does the problem lie?

The Cleft Lip defect is a 3 dimensional problem !!!

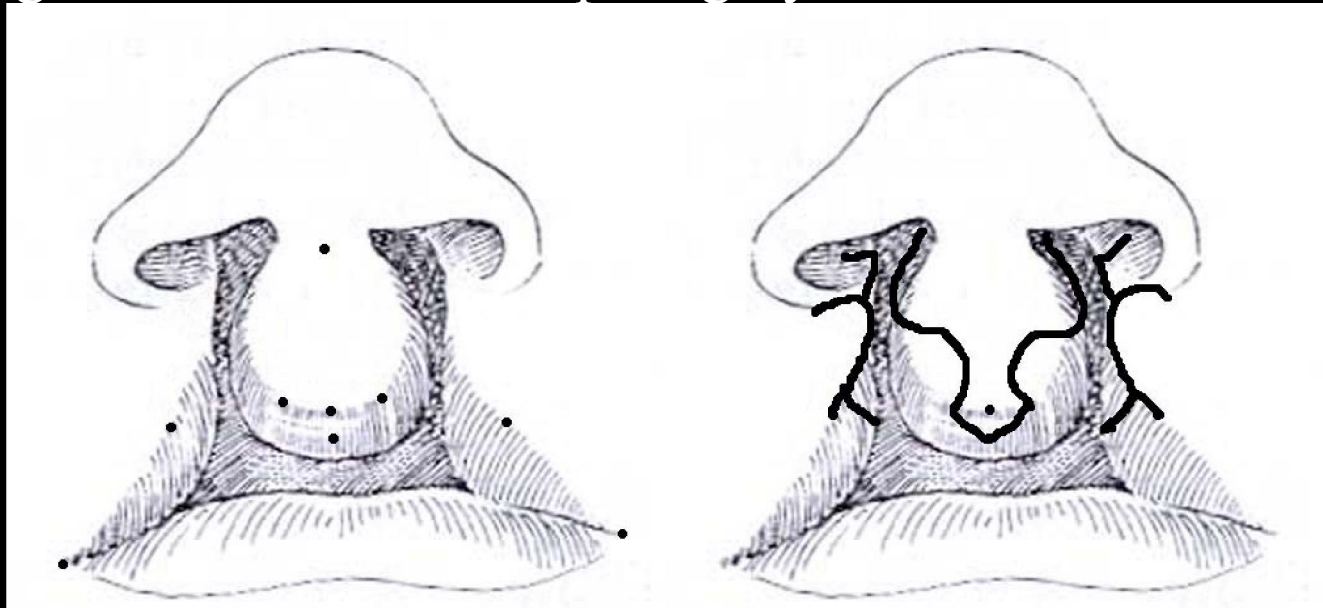


The cleft lip defect is a combination of defects not only involving the lip, but more importantly the surrounding structures of nose, pre-maxilla, prolabium and alveolar region



# Bilateral Cleft Lip Repair

Incision design for bilateral cleft lip surgery

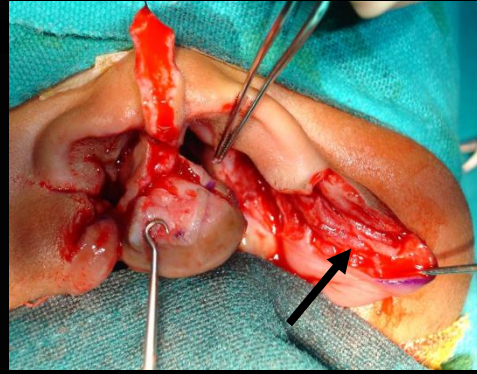




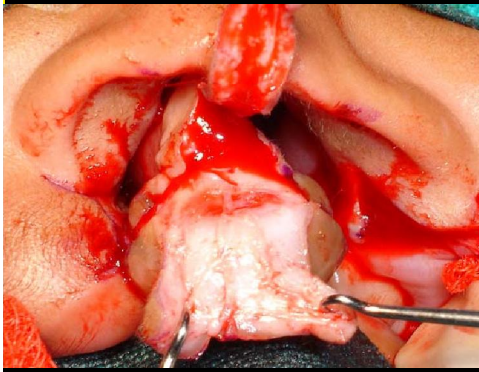
# Bilateral Cleft Lip Repair



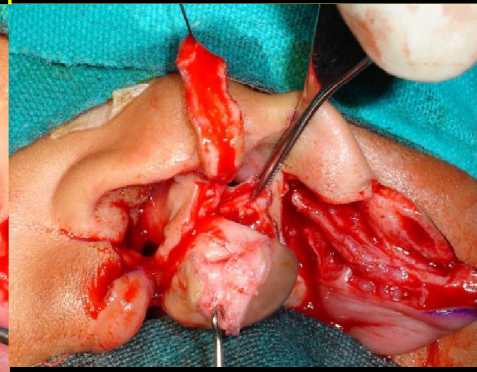
Afroze Incision



Minimal muscle dissection ensuring dissection of transverse nasalis muscle



Dissection of the prolabium is done to separate vestibular mucosa from skin. All the fibro-adipose tissue is removed and the vestibular mucosa is trimmed

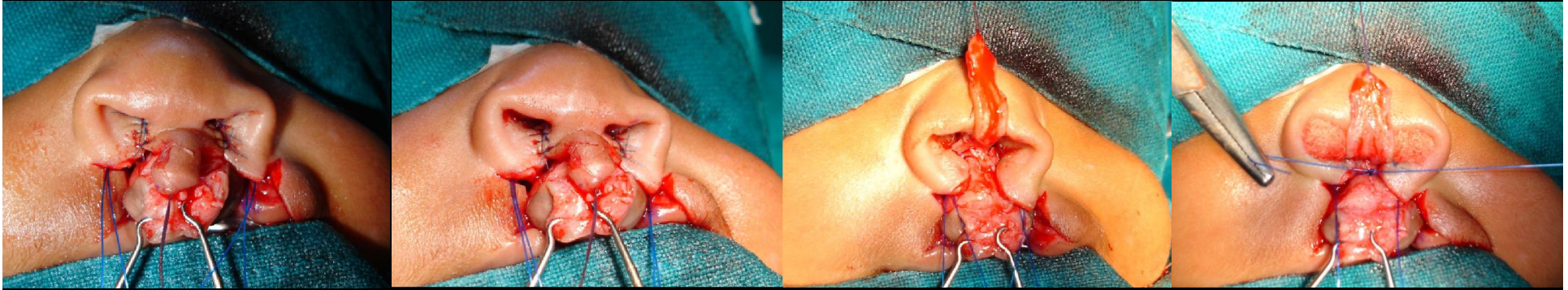


Periosteoplasty is done in patients who have associated cleft alveolus and/or cleft palate. It is done to receive the bone graft later on and to minimize the formation of “Y” junction fistula



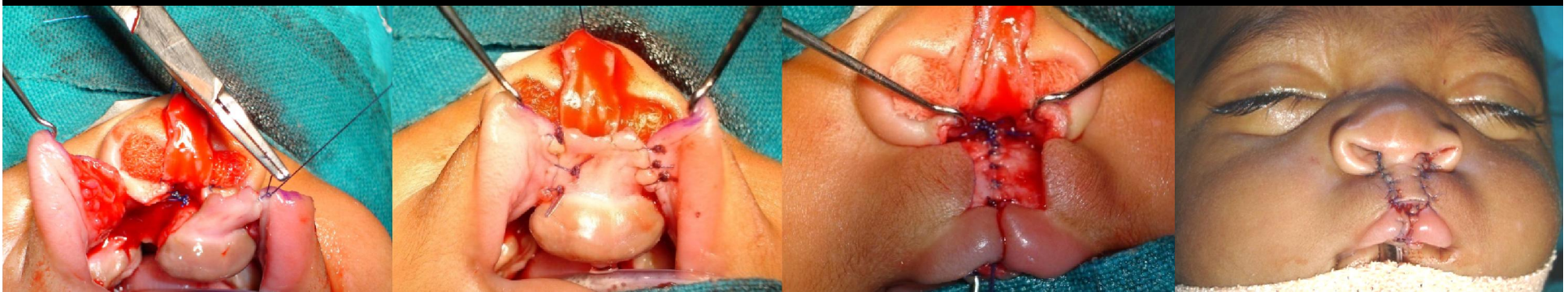


# Bilateral Cleft Lip Repair



Nasal sill is closed bilaterally

Ala of the nose is stabilized symmetrically.



Vestibule formed with tissue from prolabium and corresponding labial mucosa

Muscle approximation and closure is done





# Bilateral Cleft Lip Repair



Preoperative

5 days postoperatively

18 months postoperatively

3 years postoperatively



# Bilateral Cleft Lip Repair



Preoperative

5 days postoperatively

9 months postoperatively

3 years postoperatively





## A Comparative Study of Two Different Techniques for Complete Bilateral Cleft Lip Repair Using Two-Dimensional Photographic Analysis

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No greater problem exists in the whole field of surgery than the successful treatment of patients suffering from complete, bilateral cleft lip-cleft palate repair.<sup>1</sup> The challenge is to construct the nasolabial complex in three dimensions, incorporating soft and hard tissue and

**Background:** The aim of this study was to compare the clinical outcomes of two techniques to repair complete bilateral cleft lip by using indirect two-dimensional photographic analysis.

**Methods:** One hundred eight bilateral cleft patients were included in this study. 54 patients operated on with the Millard technique and 54 patients operated on with the Afron technique. Each group of patients was further separated into two subgroups containing symmetrical and asymmetrical cleft lips. All patients were photographed preoperatively and 4 years postoperatively in frontal and submentovertebral views in a reproducible way. Eight measurements were performed on the photographs. From these measurements, seven ratios were calculated to compare the two techniques.

**Results:** The outcomes of the interobserver and intraobserver measurements were analyzed using the Pearson correlation test. There was a statistically significant reliability in the intraobserver and interobserver ratios. Analysis of the ratios was performed using the independent samples *t* test (5 percent level of significance). The authors found that the Afron technique was better than the Millard technique in six of the seven parameters for symmetrical clefts and in four of the seven parameters for asymmetrical clefts; however, there was no statistically significant difference seen between the two techniques.

**Conclusions:** The Afron technique seems to have good clinical outcomes on bilateral cleft lip patients, but more research and long-term follow-up are needed to determine the full outcome of the technique in various parameters. (Plast Reconstr Surg 132: 00, 2013.)

**CLINICAL QUESTION/LEVEL OF EVIDENCE:** Therapeutic, III.

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anticipating four-dimensional changes of growth and distortion.<sup>2</sup>

A number of surgical procedures with many variations for the repair of bilateral cleft lip are well described.<sup>3-5</sup> The Millard technique and its variations are extensively used to repair bilateral cleft lips.<sup>6</sup> The Afron technique is based on a combination of a variation of the Millard technique on the cleft segment and a variation of the Pfeiffer technique on the prelabium. The aim of this study was to compare the clinical outcomes of the Millard technique and the Afron technique by using indirect photographic measurements in complete bilateral cleft lips.

**Disclosure:** The authors have no financial interest to declare in relation to the contents of this article.

A comparative study of two different techniques for complete bilateral cleft lip repair using two-dimensional photographic analysis

Plastic and Reconstructive Surgery 2013





# 2 Dimensional Photographic Analysis

## Results

### SYMMETRICAL BILATERAL LIP

- **Difference, statistically not significant (Afroze group better)**  
Labial, nasal, and nostril symmetry
- **Difference, statistically not significant (Millard group better)**  
Vermillion symmetry

### ASYMMETRICAL BILATERAL LIP

- **Difference, statistically not significant (Afroze group better)**  
Labial and nasal symmetry
- **Difference, statistically not significant (Millard group better)**  
Vermillion symmetry

## Conclusion

**The Afroze technique seems to have good clinical outcomes on bilateral cleft lip patients, although there were no statistical differences between the two techniques**

Source:

Gosla Reddy S, et al A comparative study of two different techniques for complete bilateral cleft lip repair using two-dimensional photographic analysis. Plastic and Reconstructive Surgery, 2013



# Bring the Smile Back



## Thank You

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