

//  
//

( )

\*

---

[ ]

% *Straight line*    % *Rotation advancement*    % :

% *(Malalignment Deficiency)*

*Rotation advancement*    *Straight line*    *Short lip*

*(P < 0.05)*

---

Lower lip Z-plasty    Straight line repair  
( )    (Randal-Tennison, LeMesurier)

Cupids bow

(.)

(Millard)

Upper and lower lip Z-plasty    Upper lip Z-plasty



Malalignment deficiency

Malalignment

Orbicularis muscle deformities

Rotation advancement

( ) Rotation advancement

(P< / )

Straight line

( ) ( )

( ) Straight line

Short lip

(Microform

Lower lip Z-plasty

(P< / )

Straight line

	Rotation adv.	Straight line
	( )	( ) ( )
Deformity of vermilion border (malalignment)		
Vermilion deficiency (notch,whistle)		
Unacceptable scar (hypertrophied,depressed,wide)		
Short lip		
Long lip		
Wide lip		
Tight lip		
Philtral column/cupids bow deformity		
Orbicularis muscle deformity		

( )

( )

( )

Straight line Rotation advancement

%

mismatch

( )

(% ) Stright line (% ) Millard

(% ) Z-plasty

( )

(Deficiency Malalignment)

Short lip

%

( ) Long lip ( )

( )

( )

(Rotation)

( )

( )

Short lip

( )

Rotation advancement

Straight line

Rotation advancement

(% % )

Tight lip

( )

( )

Maxillary orthopedics

( )

Skin hook

Short lip Bulging

---

(

( )

)

## **REFERENCES**

---

1. Habib Z. Factors determining occurrence of cleft lip and palate. *Surg Gynecol Obstet* 1978; 146: 105.
2. Fogh-Anderson P. Inheritance of harelip and cleft palate Copenhagen. Ejuar Munksgard Forlag 1943; 2: 23-9.
3. Kim S, Kim WJ, Oh C. Cleft lip and palate incidence among the live births in the republic of Korea. *J Korean Med Sci* 2002; 17: 49.
4. Staffenberg DA, Wood RJ. Secondary deformities of cleft lip repair. In: Aston SJ, Beasley RW, Thorne CHM, editors. *Grabb and Smith's plastic surgery*. 5<sup>th</sup> ed. Philadelphia: Lipincott-Raven. 1997; P: 271.
5. Stal S, Hollier L. Secondary deformities of the cleft lip, nose and palate. In: *Mathes plastic surgery*. Vol 4. Philadelphia: Saunders. 2006; P: 339-51.
6. Stal S, Hollier L. Correction of secondary clef deformities. *Plast Reconstr Surg* 2002; 109: 1672-81.
7. Mulliken J. Repair of bilateral complete cleft lip and nasal deformity: state of art. *Cleft Palate Craniofac J* 2000; 37: 342.
8. Losee JE, Selber JC, Arkoulakis N, Serletti JM. The cleft lateral lip element: Do traditional marking result in secondary deformities? *Ann Plast Surg* 2003; 50: 594- 600.
9. Assuncao G. The VLS classification for secondary deformities in the cleft lip: clinical application. *Br J Plast Surg* 1992; 45: 288.
10. Bardach J, Salyer K, editors. *Atlas of craniofacial and cleft surgery*. Cleft lip and palate surgery. Vol 2. Philadelphia: Lippincott-Raven. 1999; P:434-64.
11. Kawamoto HK Jr. Correction of major defects of the vermilion with a cross-lip vermilion flap. *Plast Reconstr Surg*. 1979 Sep;64(3):315-8.
12. Hubli EH, Salyer KE, Genocov DG. Secondary cleft lip and nasal deformities. In: Achauer BM, editor. *Plastic surgery: indications, operations and outcomes*. Missouri: Mosby. 2000; P: 835-49.
13. Lee TJ. Upper lip measurements at the time of surgery and follow-up after modified rotation advancement flap repair in unilateral cleft lip patients. *Plast Reconstr Sureg* 1999; 104: 911-5.
14. Stal S, Spirta M. Secondary reconstructive procedures for patient with cleft. In: Serafan D, Gorgiade NG. *Pediatric Plastic Surgery*. Vol 4. Missouri: Mosby. 1984; P: 352.