

FACIAL GROWTH RESULTS IN PATIENTS WITH NON-SYNDROMIC COMPLETE UNILATERAL CLEFT LIP AND PALATE TREATED WITH ONE-STAGE AND TWO- STAGE PALATAL REPAIR



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Presenter disclosures

- I have the following relevant financial relationship(s) in the products or services described, reviewed, evaluated or compared in this presentation
 - Riga Cleft Palate Center
 - employed as an orthodontist (presenter, 3rd co-author), surgeon (2nd co-author)
- I have no relevant nonfinancial relationship(s) to disclose

Introduction and background

- success of treatment - growth of the face
- lateral cephalograms
- different treatment protocols
 - timing of palatal repair surgery
 - surgical method used

Introduction and background

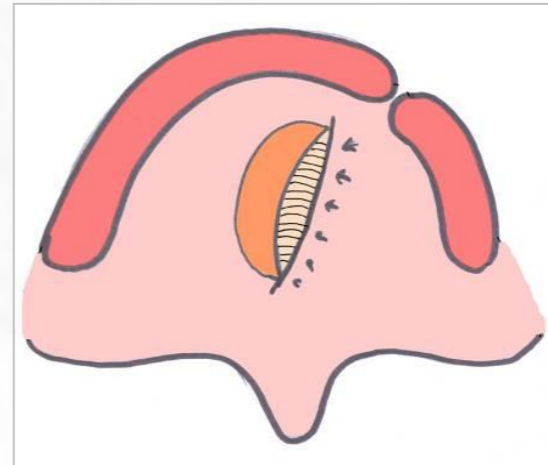
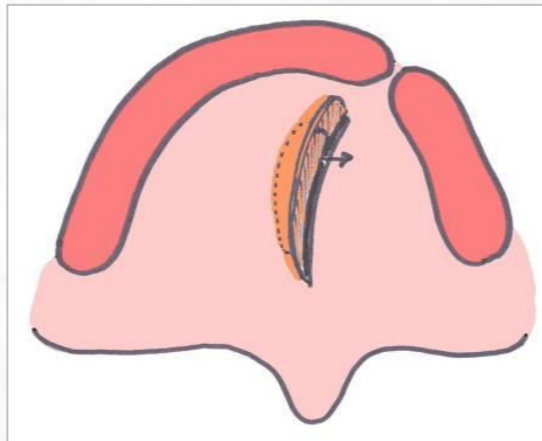
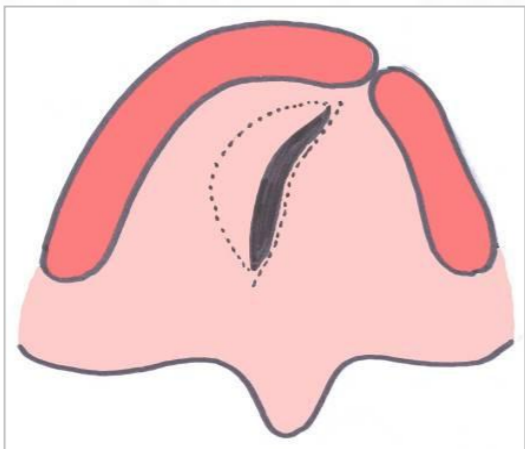
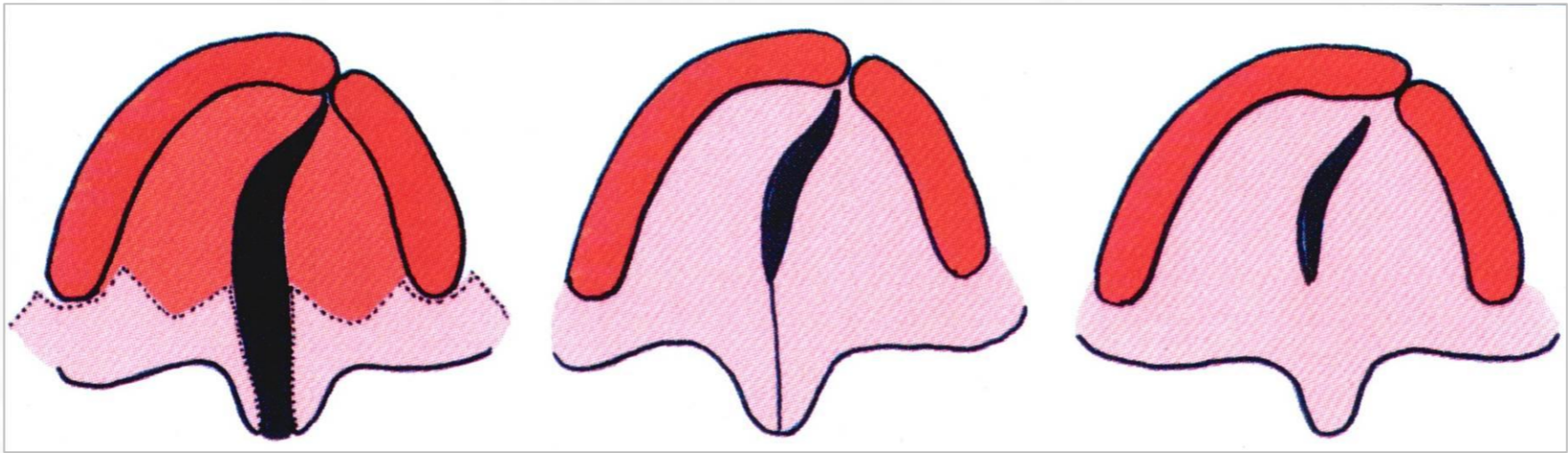
- Riga Cleft Lip and Palate center
- two protocols used since 1982
 - two - stage palate repair (soft palate at 8 – 12 months and hard palate at 3 – 4 years)
 - one - stage palate repair at age 3 – 5 years

Aim of the study

- to evaluate facial growth in patients with UCLP at 16 yrs of age who had had the closure of palate either in two - stage or in one - stage surgery

Materials and Methods

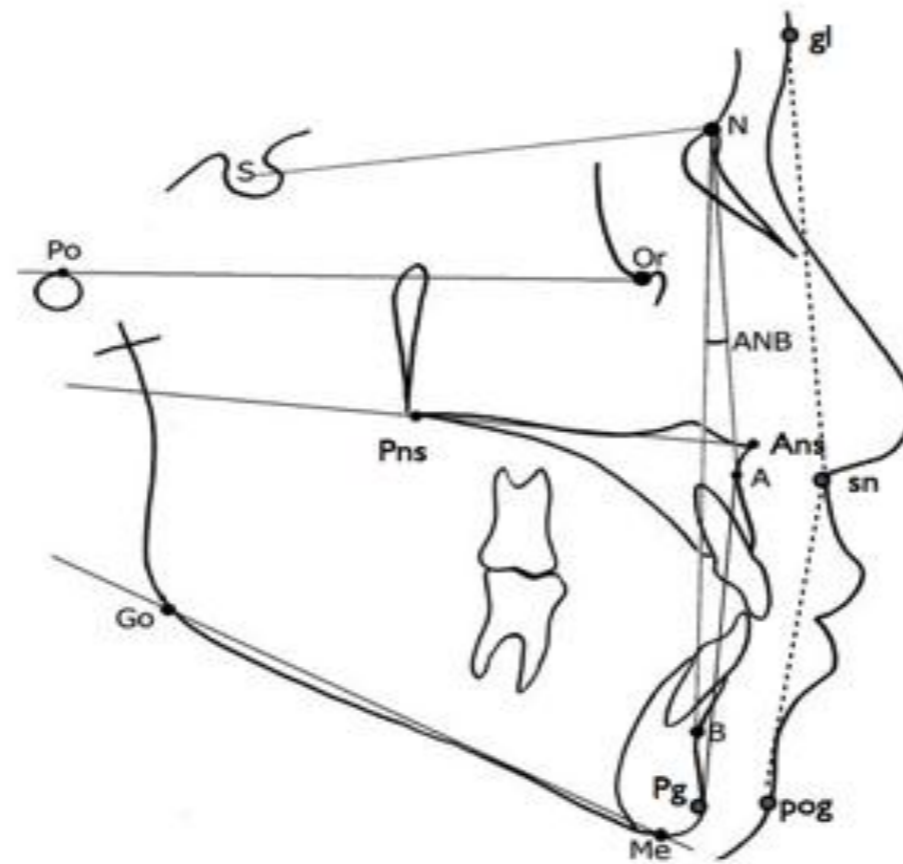
- all patients with UCLP (n=131)
 - born from 1980 - 1996
- 80 patients had lateral cephalograms available
- two study groups:
 - one-stage palatal repair group (n=42, mean age 16.6(1.7) years)
 - two-stage palatal repair group (n=38, mean age 16.3 (2.0) years)



Materials and Methods

- in cephalograms standard angles, distances and ratios were measured
- analyzed by Mann Whitney U test
- $p < 0.05$

Anatomical landmarks of hard and soft tissues digitized on lateral cephalograms



Results

	One stage palatal repair group		Two stage palatal repair group			
	n=42		n=38			
	mean	SD	mean	SD	p value	
SNA (°)	75.5	4.7	76.0	3.9	0.78	
SNB (°)	76.2	3.6	75.5	3.7	0.38	
ANB (°)	-0.6	4.4	0.4	3.5	0.35	
Facial angle (N-A-Pg) (°)	-4.6	10.1	-2.7	8.0	0.48	
Soft tissue facial angle (gl-sn-pog) (°)	3.4	10.0	4.5	7.8	0.61	
Ans-Pns/Go-Me (°)	141.2	8.1	137.6	8.6	0.02	*
Go angle (°)	128.9	5.9	125.9	7.0	0.07	
PFH:AFH (%)	64.9	4.5	67.0	5.0	0.09	
Upper facial height (mm)	59.6	7.7	63.9	7.8	0.01	*

* p<0.05

** p<0.01

*** p<0.001

Conclusions

- Patients with non-syndromic complete UCLP treated in Riga Cleft Lip and Palate center by one-stage palatal repair had slightly increased palatal plane/mandibular plane angle and decreased upper facial height compared to two-stage palatal repair group
- Otherwise both groups showed similar growth results at 16 years of age