

FACTORS AFFECTING RELAPSE AFTER MANDIBULAR DISTRACTION FOR HEMIFACIAL MICROSOMIA

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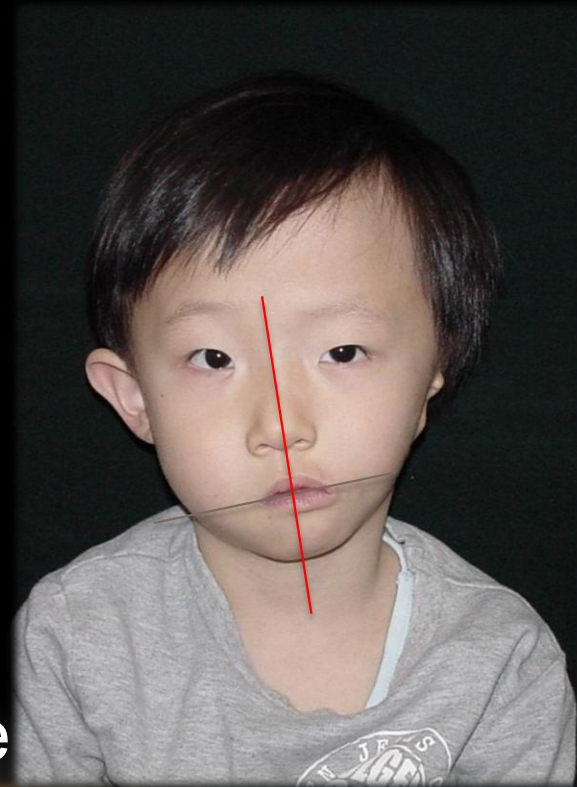
HEMIFACIAL MICROSOMIA

• Incidence rate: 1/3500~1/5600

• Facial asymmetry

• Unilateral underdevelopment

- Mandible, maxilla, zygoma
- External & middle ear
- Associated soft tissue & muscle



RELAPSE OF DOG

- Controversy

PURPOSE

- Access factors influencing the relapse
 - Define adequate amount of distraction
-

PATIENTS & METHODS

- Hemifacial microsomia (unilateral)
2000~2011, **25** cases.
- Mean follow up: **4yrs** (range: 1yr~12yrs)
- Mean age : **8.5yrs** (range: 5yrs~37yrs)
Male : Female = 18 : 7
Rt. : Lt. (Affected side) = 14 : 11

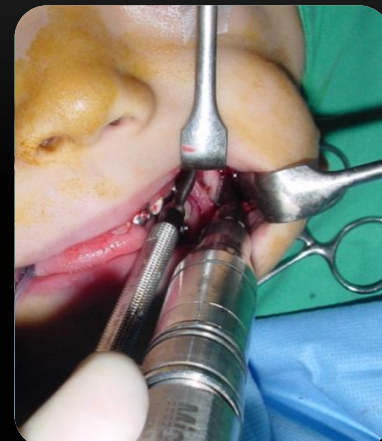
OPERATIVE TECHNIQUE



1. Design & Exposure



2. Selection of pin site



3. Subtotal osteotomy



4. Pin insertion



5. Complete Osteotomy



6. Device application

PATIENTS & METHODS

● Group by **distraction amount**

Group 1	Group 2	Group 3	Group 4
<10%	10%~20%	20%~30%	>30%

● Group by **initial severity**

affected / non-affected side

Group A	Group B	Group C	Group D
<10%	10%~20%	20%~30%	>30%

PATIENTS & METHODS

- Serial AP cephalometry

 - Facial height measuring

- Serial Panoramic view

 - Mandible ramus height measuring

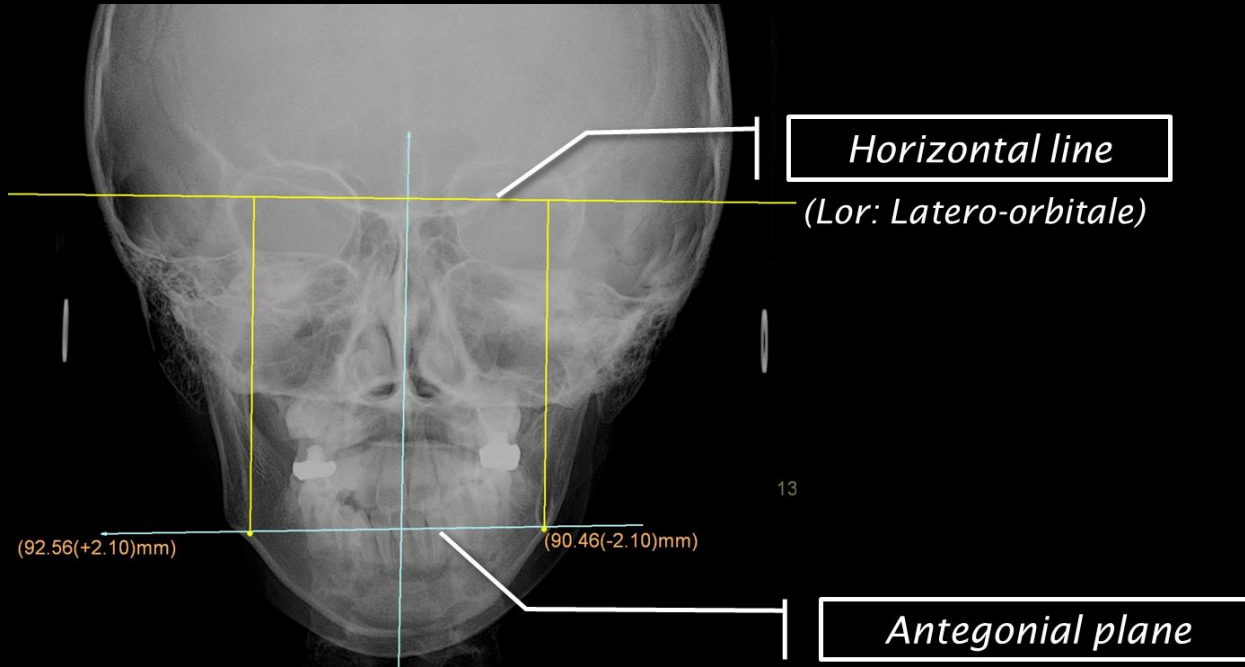
- Measuring time

 - T0(PreOp): Preoperative initial

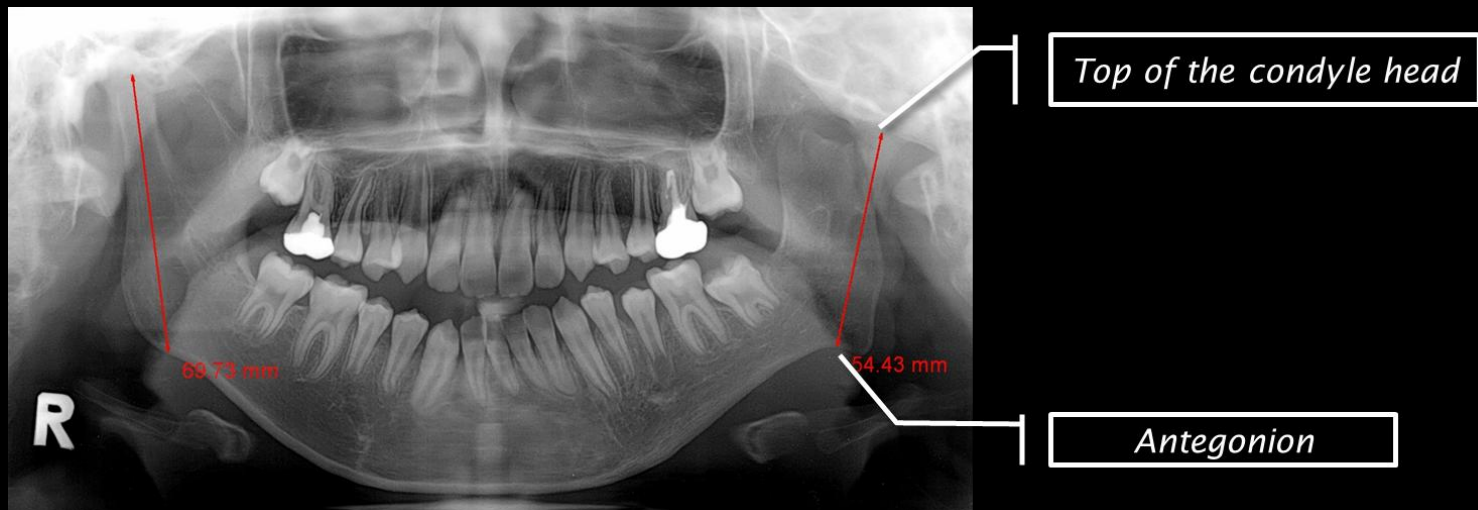
 - T1(EOD): End of distraction

 - T2(LFU): Long term follow-up

FACIAL HEIGHT



MANDIBLE HEIGHT

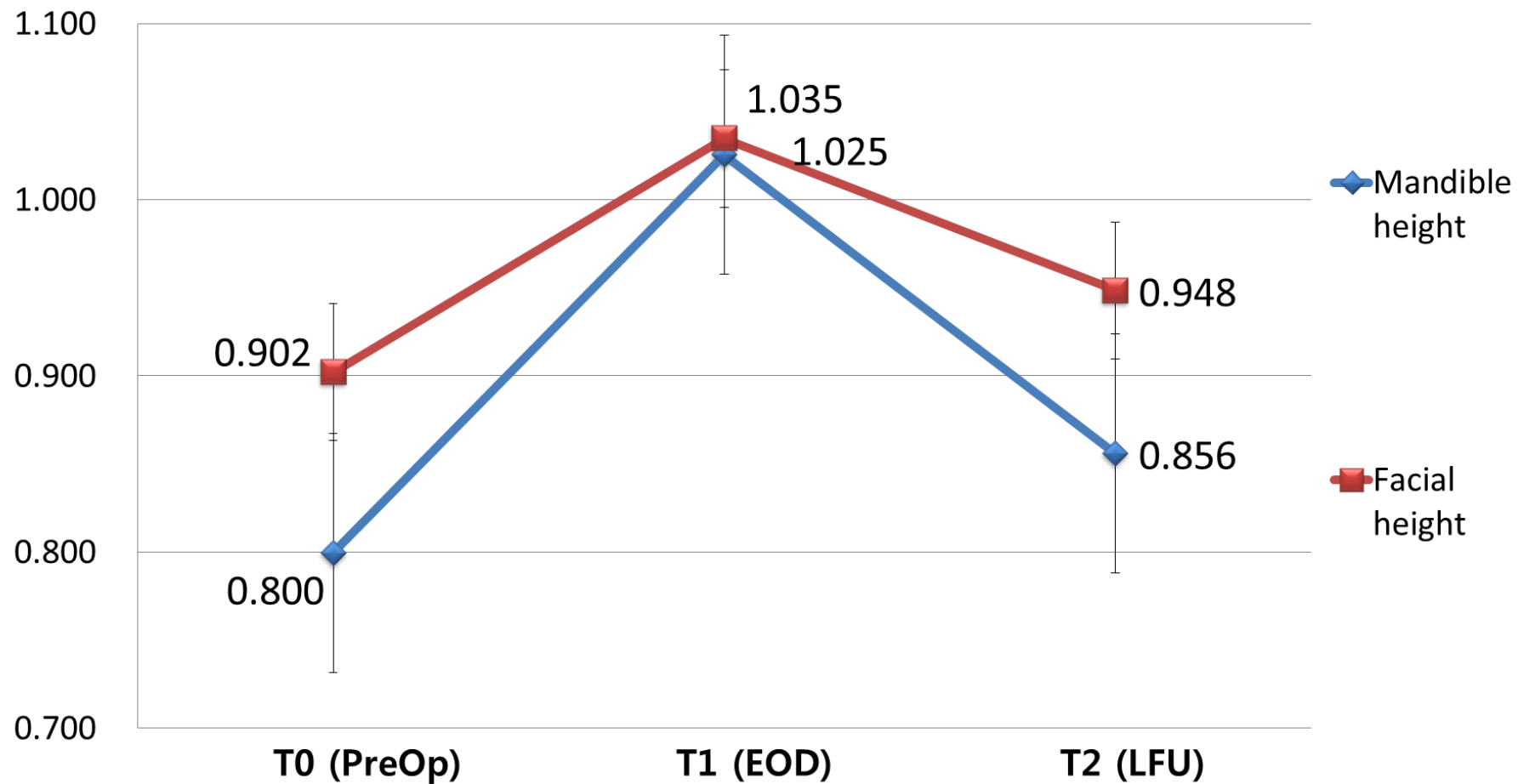


PATIENTS & METHODS

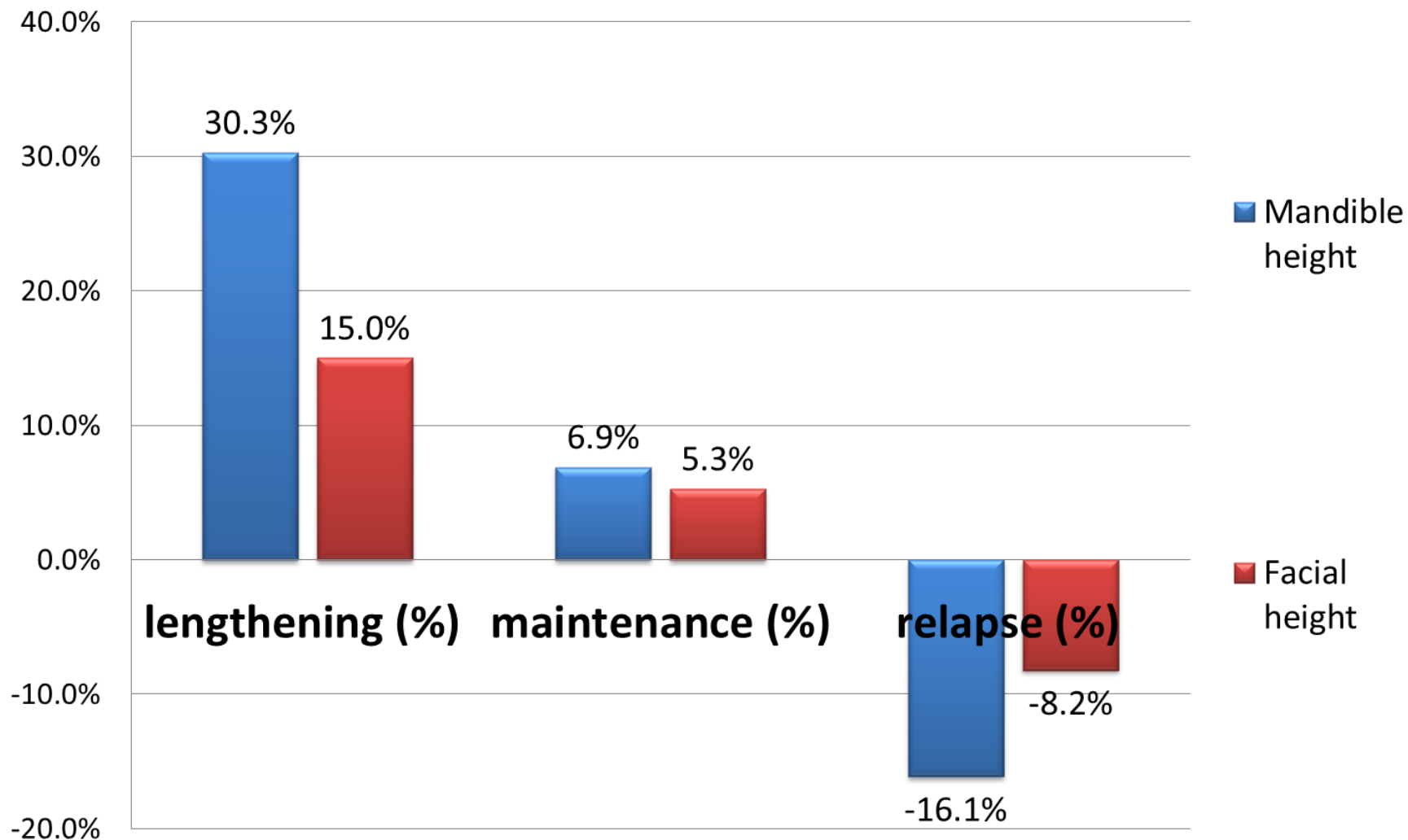
Measurements

- **Ratio:** affected side / non-affected side
 - Amount of distraction (%)
 - Final amount of lengthening (%)
 - **Relapse (%)**
-

RESULTS : OVERALL HEIGHT

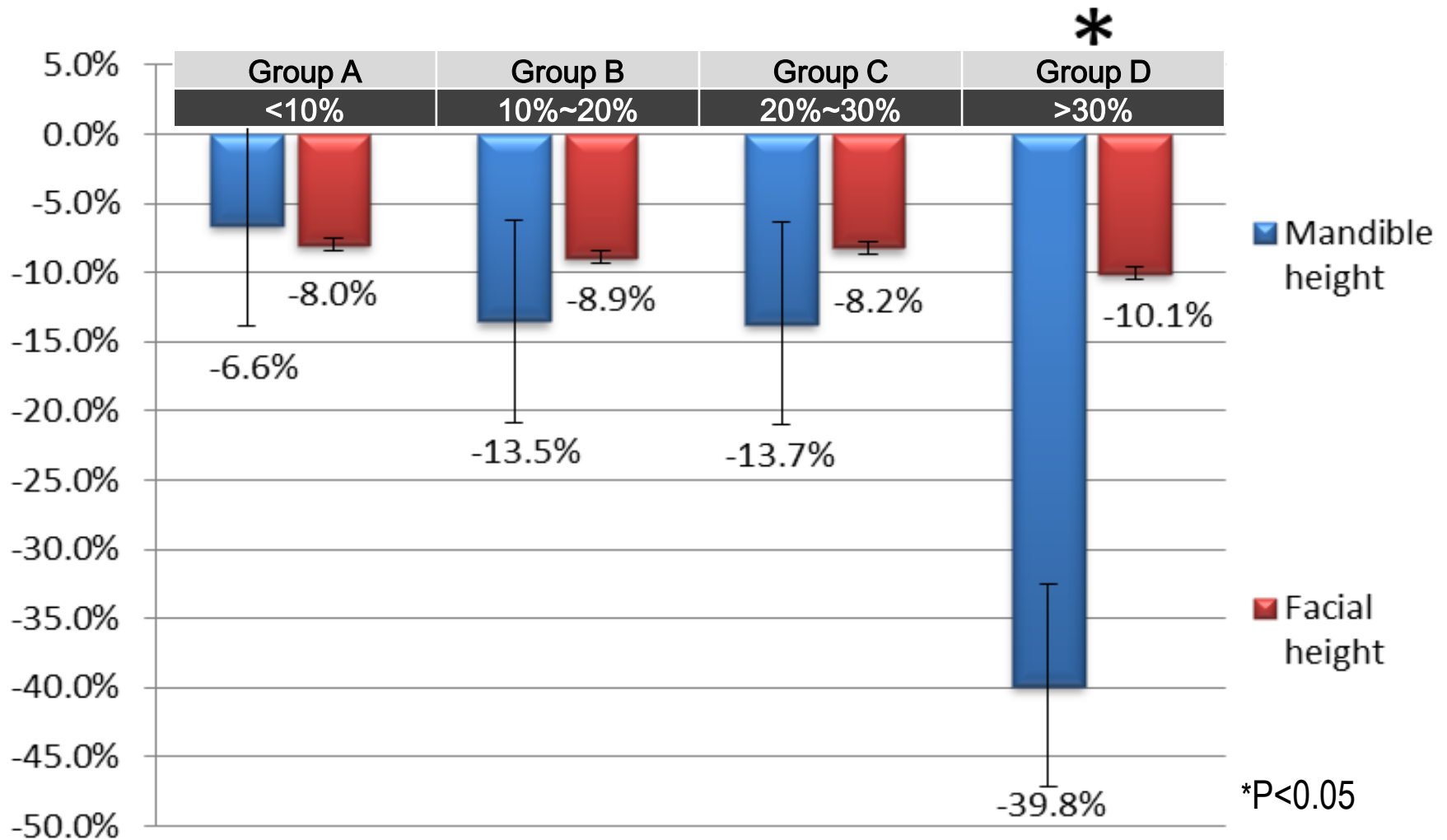


RESULTS : OVERALL RATE



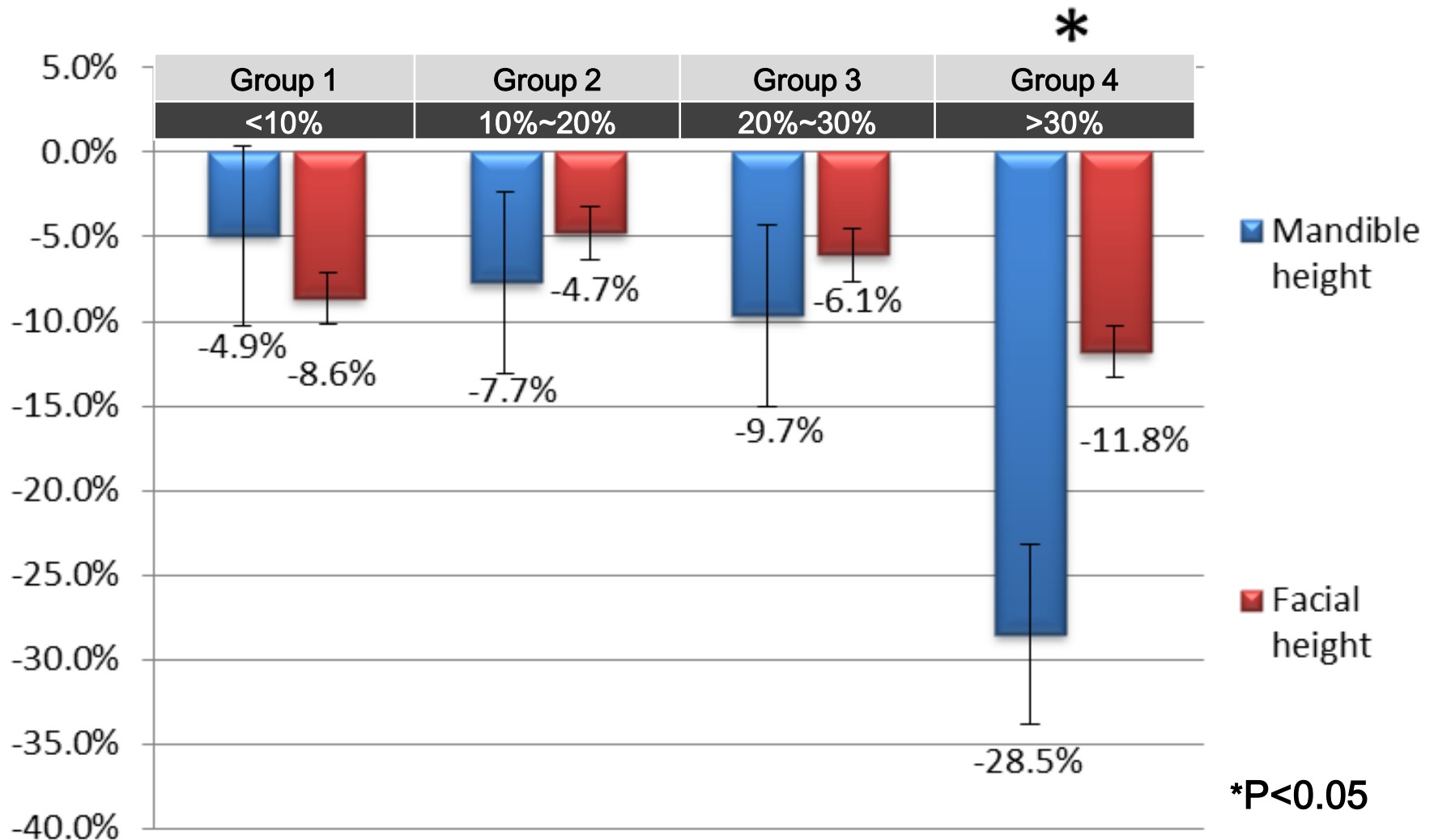
RELAPSE RATE

GROUP BY INITIAL SEVERITY



RELAPSE RATE

GROUP BY DISTRACTION AMOUNT



CONCLUSION

Factors affecting Relapse

◆ Amount of distraction

- **Group 4 (>30%):** Relapse ↑
- More distraction, more relapse

◆ Initial severity

- **Group D (>30%):** Relapse ↑
- More severity, more relapse

CONCLUSION

For minimize relapse

- Adequate distraction amount
 - Less than 30% distraction
 - Not overcorrection
- Multistage distraction
- Enough post op orthodontics