

# Monobloc and Facial Bipartition Osteotomies

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# GSR Institute of Facial Plastic Surgery



- Non-profit hospital established in 1996
- Dedicated Cleft & Craniofacial Centre of Excellence
- **1,500** cleft and cranio-facial surgeries are done every year
- 2 surgeons and 4 fellows with full support team
- More than **25,000** cleft & craniofacial surgeries have been performed since 1996
- **600** primary new born cleft children are treated every year



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# Facial Bipartition and Monobloc Osteotomy

## Why?

- To correct midface deformities caused by
  - craniosynostosis syndromes
  - frontonasal dysplasias
  - cranio-orbital clefting

## What?

### Monobloc

- advancing orbit and midface as one unit
- **Fernando Ortiz-Monasterio**

### Facial Bi-partition

- splitting the monobloc osteotomy in the midline to remove nasal and ethmoid bones and medializing the naso-orbital complex.
- **Van der Muelen**

Courtesy :

Kademani D, Tiwana P. Atlas of Oral and Maxillofacial Surgery , Elsevier Health Sciences - US; 1 edition.  
2015



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# Facial Bipartition and Monobloc Osteotomy

How?

## Facial Bipartition

### Indications

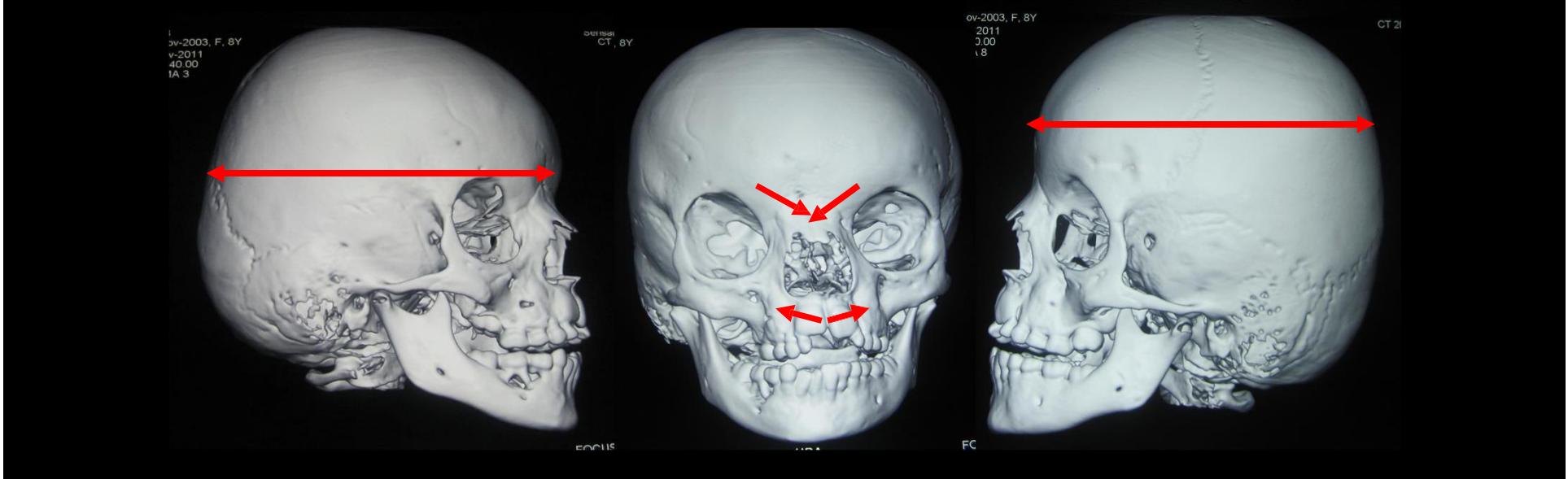
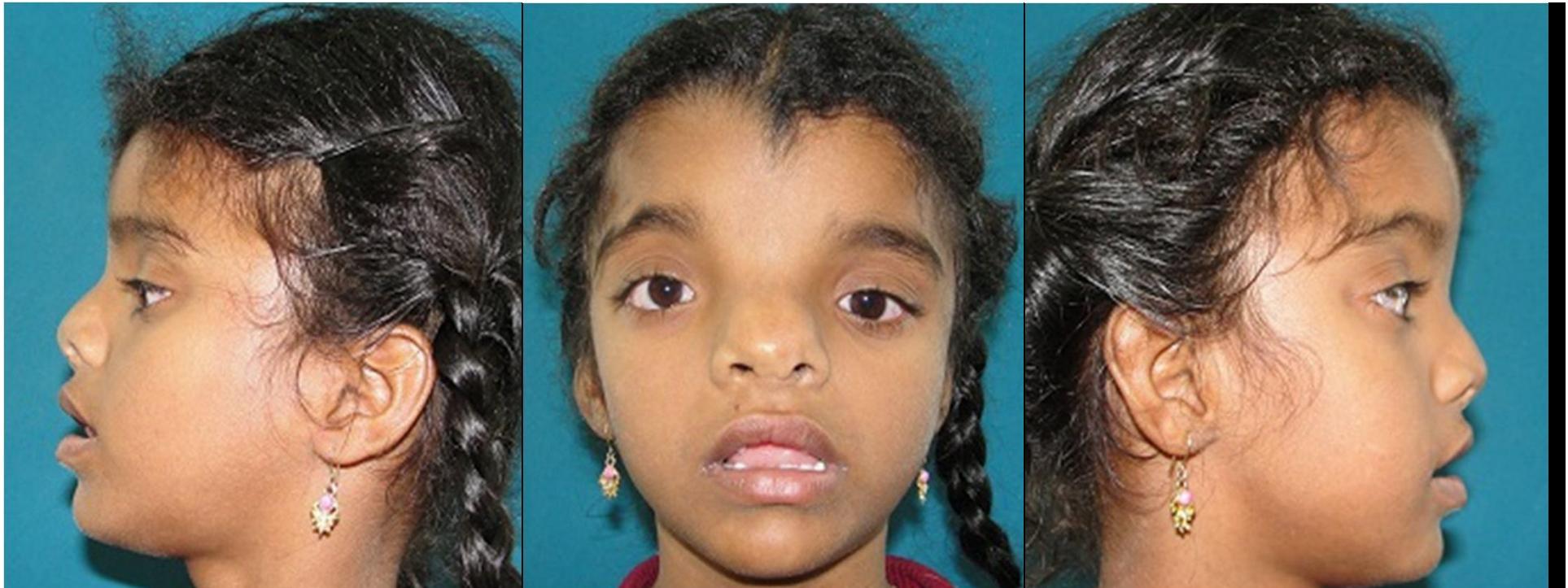
- To increase antero-posterior dimension of the cranial complex

While also

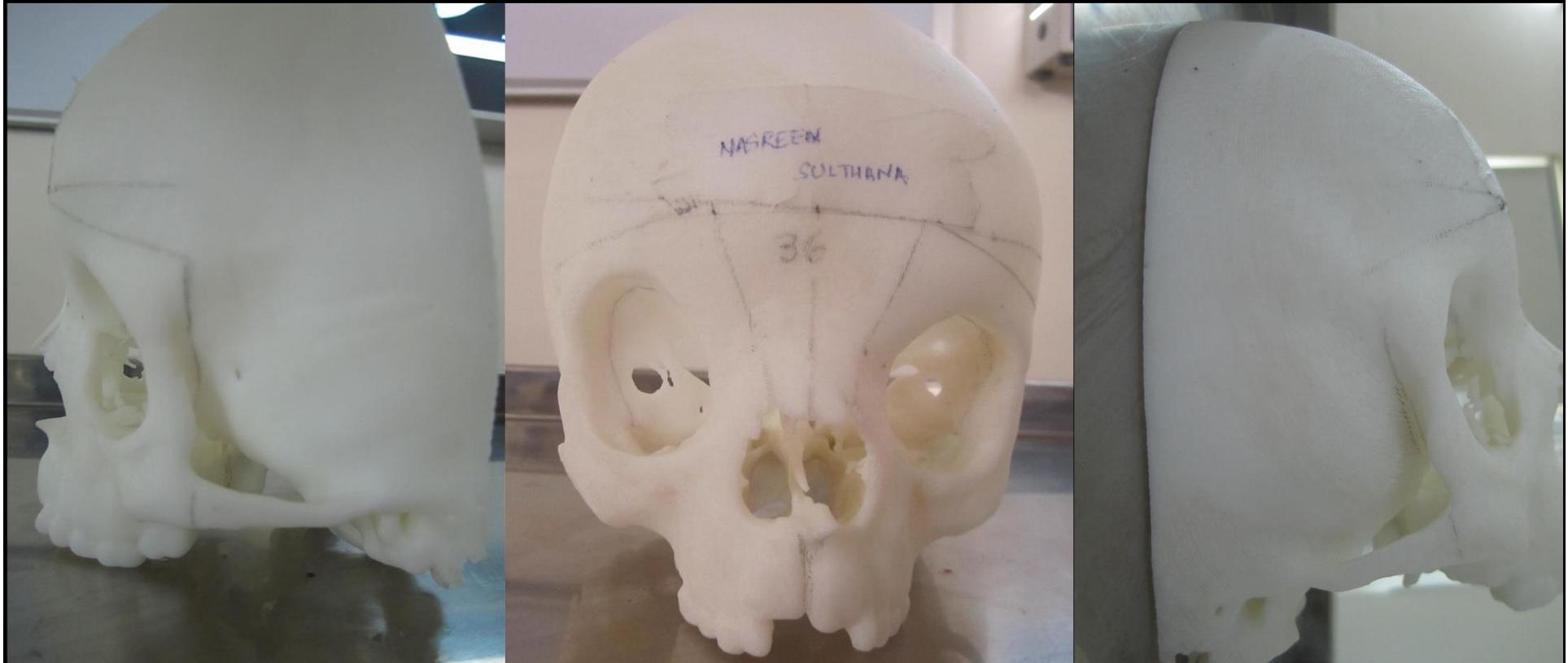
- Correcting hypertelorism and
- Flattening the maxilla



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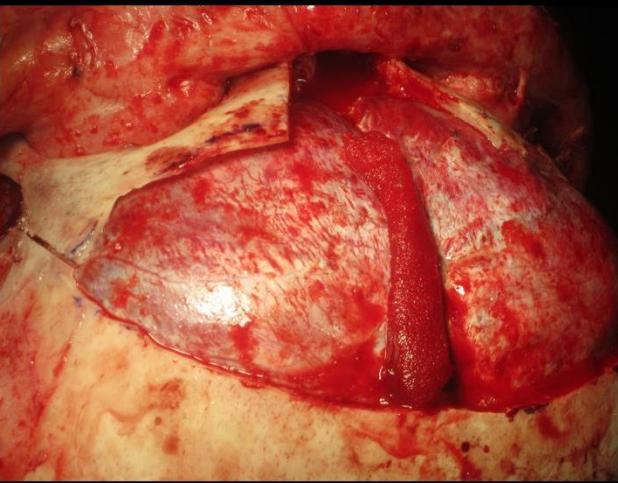
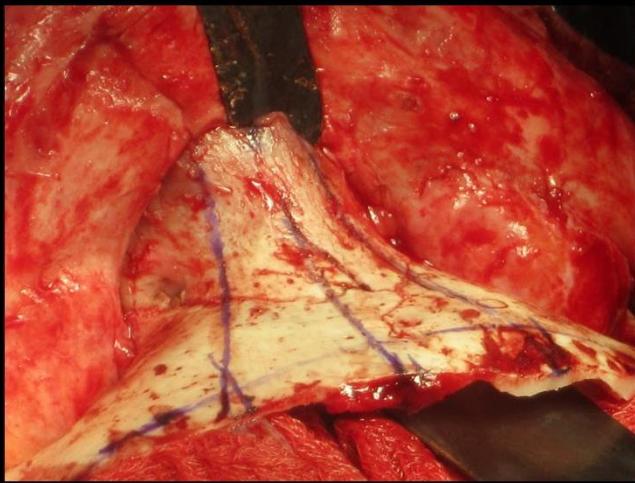
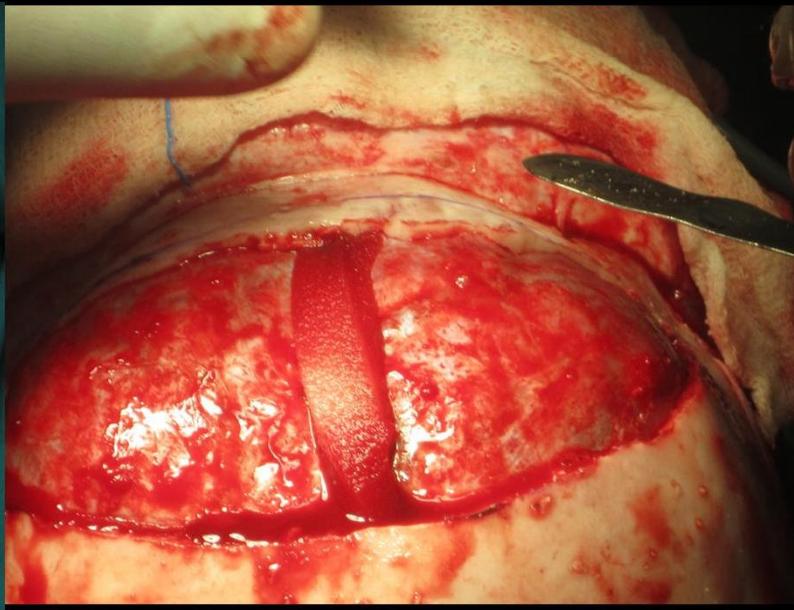
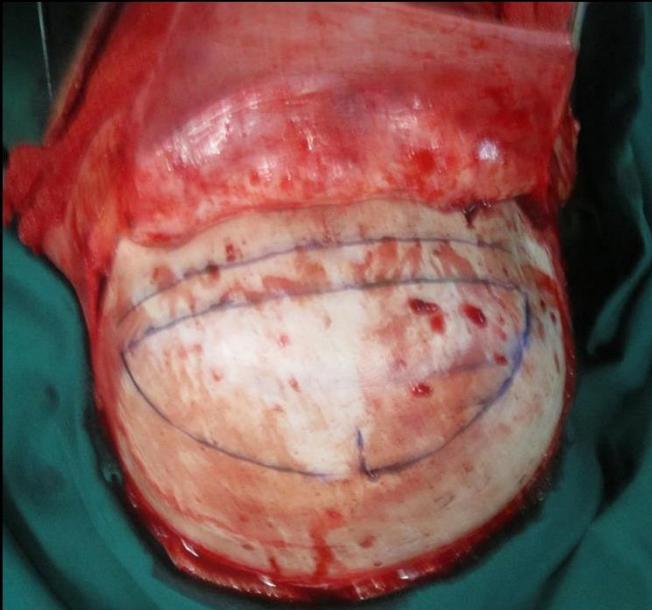


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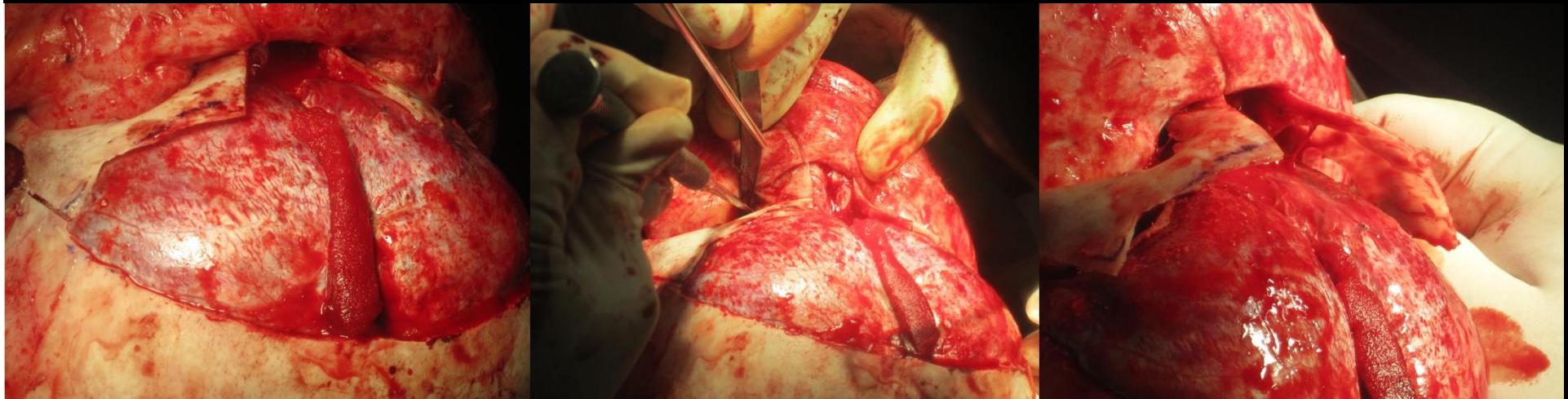
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# Frontal and medial craniotomy



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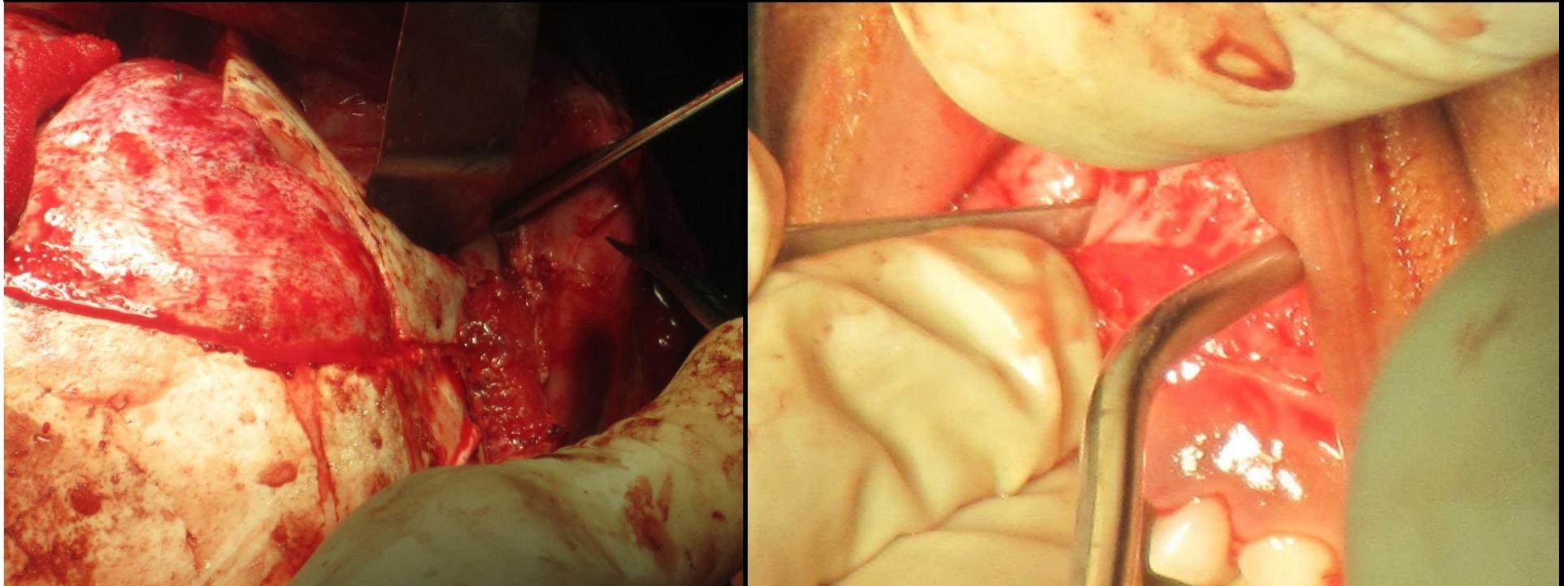
# Lateral, Medial and Superior orbital osteotomies



- These osteotomies are done to separate the naso-orbital complex from the temporal and sphenoid bones and also the skull base
- Osteotomy is also done at the zygomatic bone.



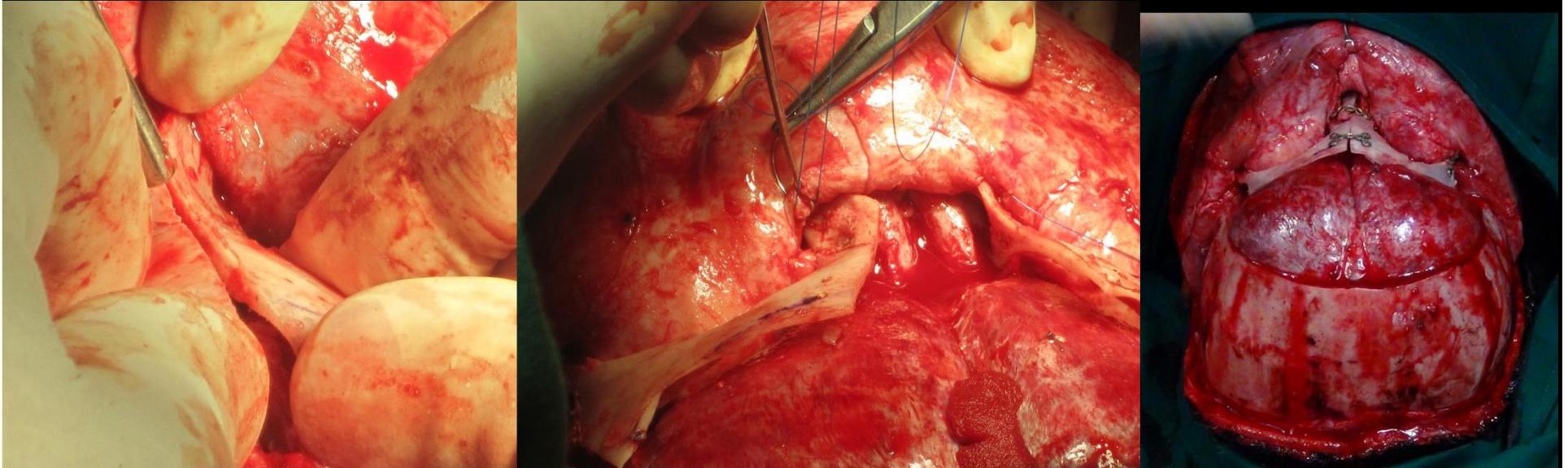
# Pterygo-maxillary and mid palatine osteotomies



- Pterygo-maxillary osteotomy done to separate the zygomatico-maxillary complex from the pterygoid bone.
- Mid-palatine osteotomy is done to flatten the maxilla.

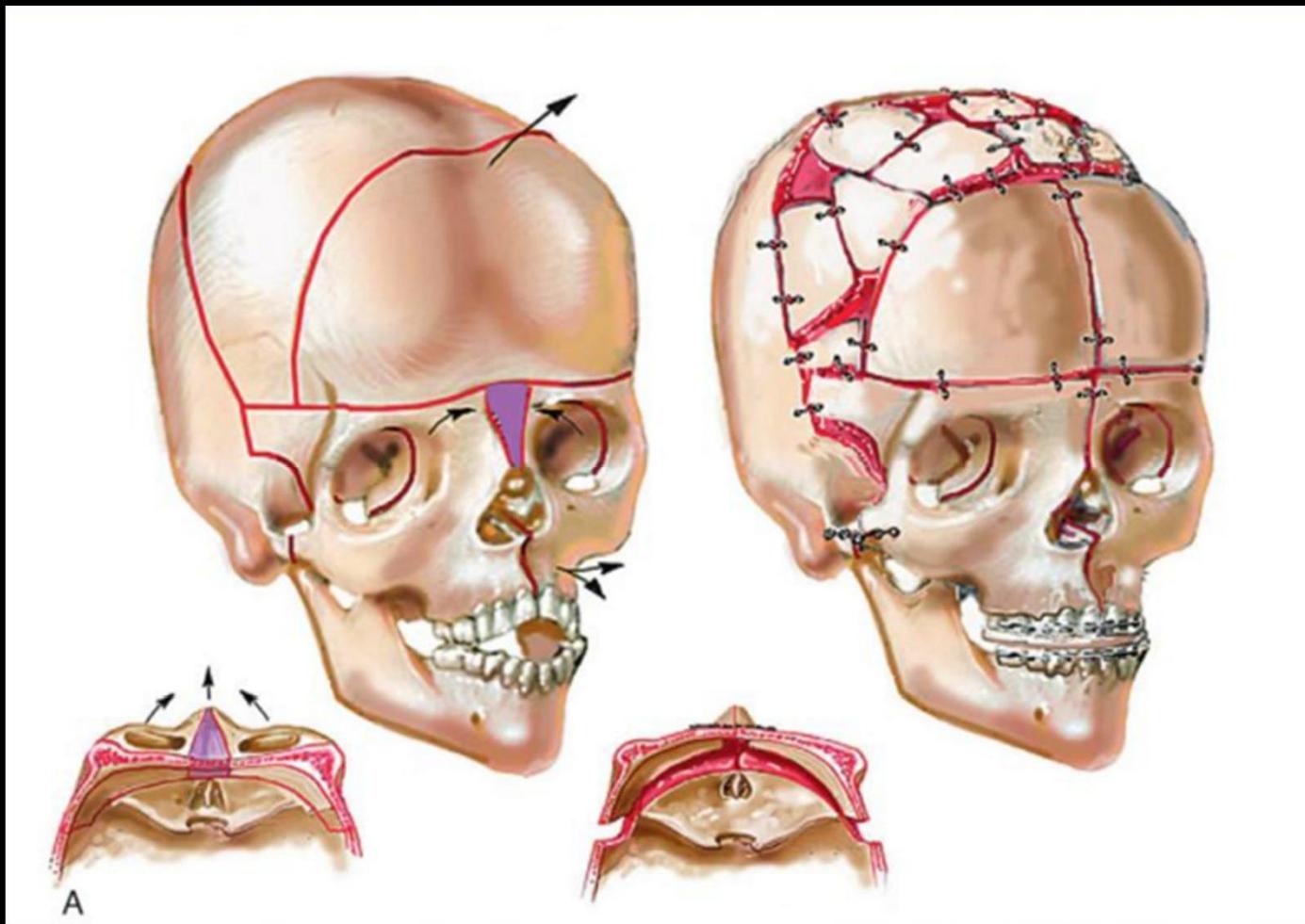


## Approximation and fixation



- If the osteotomies are complete the segments will medialise with finger pressure
- Medial and lateral canthal ligaments are resuspended
- Fixation is done





Courtesy :

Kademani D, Tiwana P. Atlas of Oral and Maxillofacial Surgery , Elsevier Health Sciences - US;  
1 edition. 2015



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# Monobloc

## Indications

- To increase antero-posterior dimension of the crano-maxillary complex



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- The exposure the same as that is done for facial bipartition





- The lateral osteotomies are same as those done for facial bipartition.
- No medial cuts are given ensuring that the osteotomised complex is moved antero-posteriorly as a single block

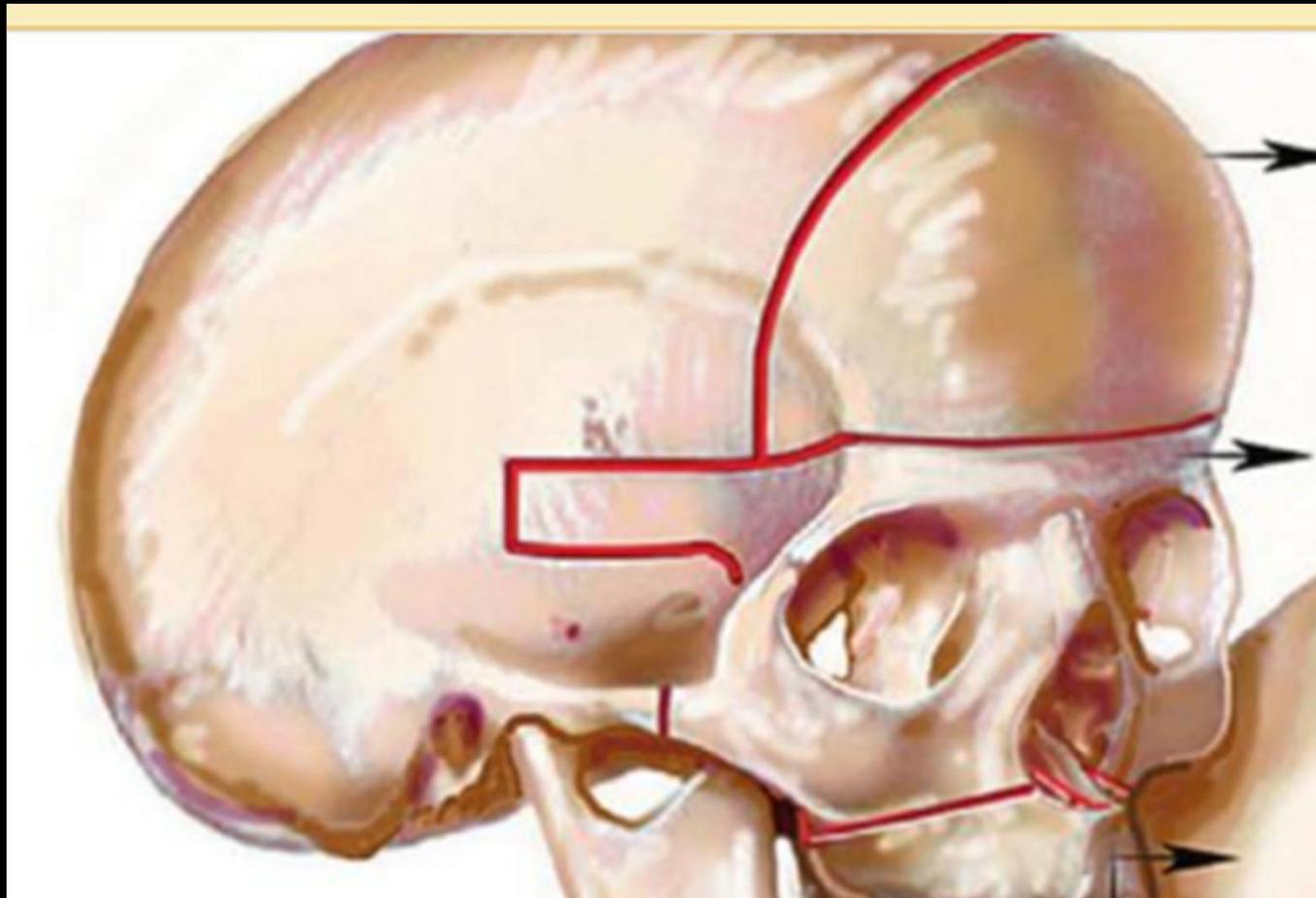




- Distractor in place
- Distraction was preferred because of the amount of movement required, the dead space the movement would have resulted in and poor quality of bone already present.



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# Bring the Smile Back



## Thank You



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