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
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 Oritz-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 :

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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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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 osetotomy is done to flatten the maxilla.
If the osteotomies are complete the segments will medialise with finger pressure.
Medial and lateral canthal ligaments are resuspended.
Fixation is done.
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Monobloc

Indications

• To increase antero-posterior dimension of the cranio-maxillary complex
• 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

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• 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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