

CORTICO-BASAL IMPLANTOLOGY BOON IN REHABILITATION OF DEVASTATING DISFIGUREMENT AFTER FIREARM INJURY TO FACE

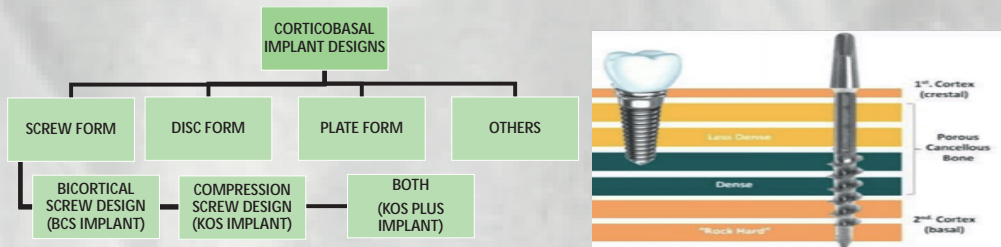


Authors: 1*. Dr. Arjun Mahajan (Junior Resident), 2. Dr. Chandresh Jaiswara (Professor)
3. Dr. Akhilesh Kumar Singh (Professor) 4. Dr. Nachammai Nagarajan (Junior Resident),
5. Dr. Vyomika Bansal (Junior Resident)



INTRODUCTION

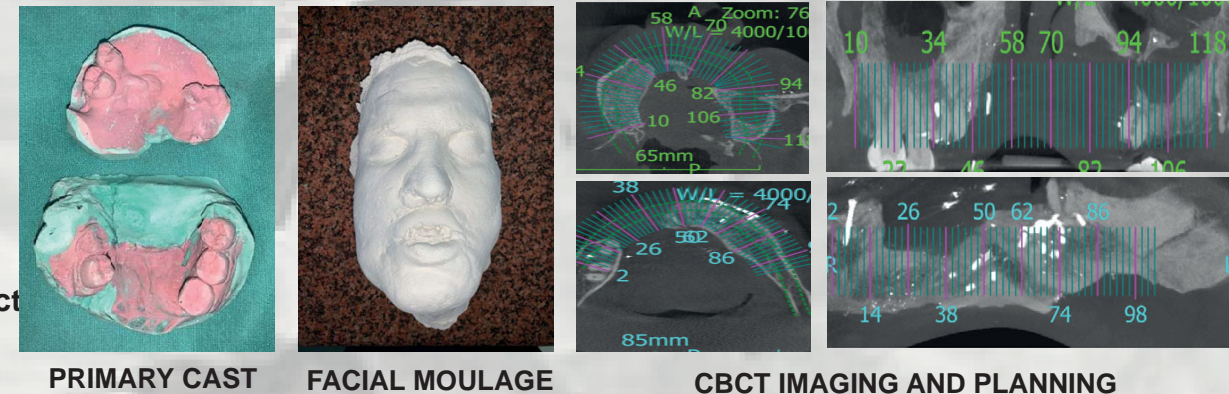
- Cortico-basal implants are implants which are osseo-fixated in cortical bone areas with the intention to use them in an immediate loading protocol - The "consensus on basal implants" (2018) of the International Implant Foundation
- First Described By Per Ingvar Branemark (Father of Dental Implantology)



CASE HISTORY

- 34-year-old male
- H/O close range firearm injury during interpersonal violence
- After primary airway management, hemodynamic stability debridement was done.
- Reconstruction with Iliac Crest Graft → Anterior Mandible
- Radial Artery Forearm Flap → Upper Lip
- Aramany's (1987) class IV residual Maxillary Defect
- Fixation with 2mm Ti-miniplate system.
- Healing period of 2 years.

INVESTIGATIONS & IMAGING



PRE-OPERATIVE

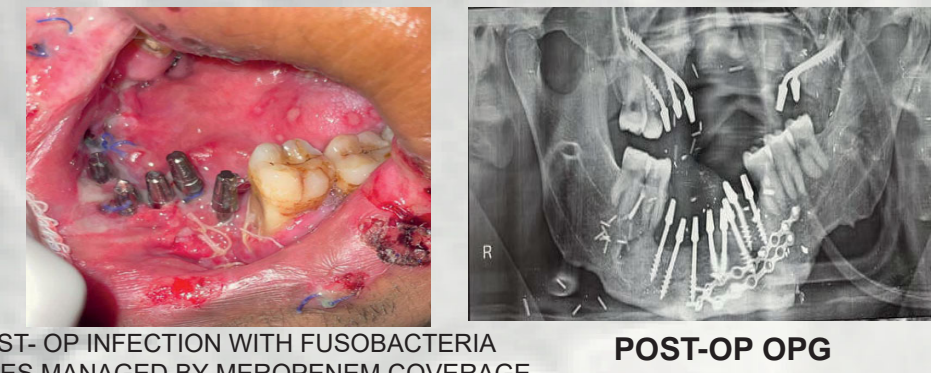


INTRA-OPERATIVE

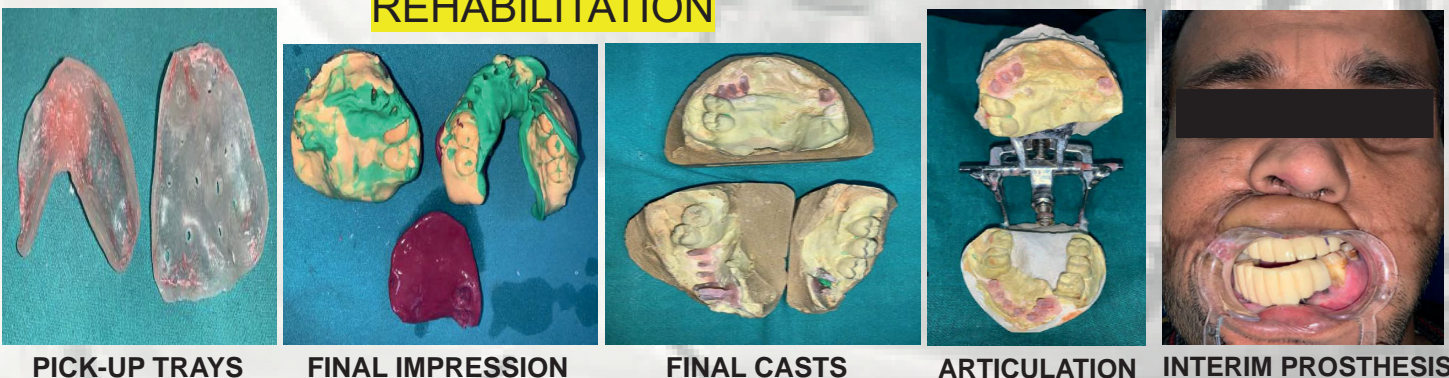


- 8 Bi-cortical implants in anterior mandible placed in osseous iliac graft
- 45mm bi-cortical zygomatic implants (1 on right and 2 on left side) were placed, 2 additional bi-cortical implants were placed on right side.
- 2-month healing period due to compromised healing (post-op infections and patient suffering from severe weight loss due to multiple previous surgical interventions)

POST-OPERATIVE



PROSTHETIC REHABILITATION



DISCUSSION

- Zygomatic implants bent at 45° to compensate angle between maxilla and zygoma
- 30-55mm length range is available for machined Ti zygomatic implants
- Disadvantages:
 - ✓ Sinus pathologies
 - ✓ Limited mouth opening
 - ✓ Bisphosphonate therapy, Radiation or chemotherapy



CONCLUSION

