

Technique – double (Md first) outline

I. surgical timing

- A. class I
- B. class II
- C. class III
- D. bimaxillary retrusion

II. surgical orthodontics

- A. stability and periodontal health
- B. increase surgical intercuspation
- C. surgical orthodontic appliance
- D. tooth mass coordination
- E. surgical orthodontic finishing
- F. surgical retainers

III. Le Fort I + BSSO surgical technique

- A. preliminary
 1. staff
 2. instruments
 3. head drape
 4. intubation
 5. table
 6. bite check
 7. anesthesia monitoring
 8. local anesthesia
 9. eye protection
 10. preparation
 11. nasal screw
 12. saline irrigation
 13. peridex soak
 14. cut upper arch wire
 15. equilibrate teeth
- B. BSSO dissection
 1. BSSO retractors
 2. local injection
 3. dissection areas

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- C. BSSO osteotomy cuts
 1. right side normal
 2. left side complications
 3. inferior border complications

- D. BSSO split
 1. reposition retractors
 2. chisel selection
 3. nerve dissection
 4. impacted 3rds
 5. stretch periosteotomy ct
 6. B point buccal cortex skeletal wire

- E. IMF – intermediate splint
 1. cephalometric splint planning
 2. splint application

- F. BSSO fixation
 1. definitions
 2. fixation basics
 3. bivector condylar seating
 4. plate application
 5. clinical case
 6. fragment clamping

- G. LFI local anesthesia

- H. intermediate splint removal

- I. LFI osteotomy
 1. flap design
 2. nasal floor dissection
 3. nasal septum separation
 4. interdental osteotomy
 5. horizontal osteotomy
 6. pterygomaxillary fissure separation
 7. posterior lateral wall separation
 8. down fracture

- J. initial bone removal
 1. pyramidal bone release
 2. posterior wall ostectomy

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- K. advancement mobilization
 - 1. pyramidal bone release
 - 2. section hanging pterygoid plates
 - 3. piriform stretch right and left with bone hook
 - 4. posterior inferior sinus push with periosteal elevator

- L. nasal floor H osteotomy
 - 1. interdental mobilization
 - 2. Turvey palatal spreader
 - 3. bimanual manipulation
 - 4. nasal oral fistula

- M. LFI intermaxillary fixation
 - 1. dental wires
 - 2. skeletal wires
 - 3. no final splint
 - 4. IMF sequence
 - 5. acrylic archwire

- N. first contact bone removal
 - 1. direction of forces during condylar seating
 - a. chin posterior
 - b. bivector condylar seating
 - c. angle up condylar seating
 - 2. bone removal sequence
 - 3. bone removal difficulty
 - 4. retractors – bone removal
 - 5. final bone removal
 - 6. nasal screw – vertical incisor exposure

- O. nasal floor plasty

- P. pre plating check
 - 1. buccal fat pads
 - 2. septal length
 - 3. irrigation of surgical sites

- Q. LeFort I plating
 - 1. check for osteotomy slides
 - 2. OsteoMed 2.0 Orthognathic plating system
 - 3. OsteoMed screws and driver
 - 4. OsteoMed non-torque bender
 - 5. over-bent plates

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6. condylar seating for plating
7. recheck nasal screw measurement

R. LeFort I lengthening

1. bone character
2. plate design
3. interpore 200 wedges
4. platelet rich plasma (PRP)
5. local bone graft - OsteoMed bone harvester
6. Vitoss
7. iliac crest bone graft
8. rigid BSSO fixation
9. Amitriptyline, tiagabine

S. LFI closure

1. cheek bone augmentation
2. alar base cinch
3. reconstructive V-Y closure
4. LFI incision closure

T. BSSO closure

1. copious irrigation
2. graft placements
3. BSSO incisor closure

U. final procedures

1. observe profile
2. do chin osteotomy
3. observe chin contour
4. chin grafting materials
5. arch wire acrylic
6. release IMF
7. bite check
8. bite check inconsistency
9. screw removal
10. elastics
11. eyes
12. dressing

V. Mx and Md operation sequencing

1. mandible first indications
2. BSSO first sequence
3. maxilla first indications
4. maxilla first sequence

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IV. LFI + BSSO (maximizing chin projection)

- A. chin projection determinants
- B. How does CCW mandibular advancement affect.....
 - 1. magnitude of Md advancement
 - 2. profile aesthetics
 - 3. mandibular advancement stability
 - 4. posterior maxillary impaction
- C. CCW advancements are associated with relapse when wire fixation is used
- D. Are CCW advancements associated with relapse when rigid fixation is utilized?
- E. CCW advancement stability
- F. What are the indications for CCW mandibular advancement?

V. midline mandibular osteotomy

- A. start
- B. midline dissection
- C. inferior border osteotomy
- D. basal bone osteotomy
- E. interdental osteotomy
- F. mobilize
- G. fixation
- H. chin + midline osteotomy
- I. sequencing the sagittal osteotomy with the midline and/or chin osteotomy
- J. LFI vascular accidents

VI. FACIAL SCULPTING

- A. facial augmentation sites
- B. interpore 200 + avitene
- C. shaping at surgery
- D. limitations of HA + avitene