

## NOMA SECOND STAGE

### TRISMUS RELEASE AND RECONSTRUCTION OF INNER AND OUTER LINING

- INDICATION: - Release of a partial trismus or a complete fibrotic or bony ankylosis. Closure of a big destruction of the face/cheek by using the prefabricated temporo-facial (TF) flap and a delayed delto-pectoral (DP) flap which is prepared in the first stage.
- MATERIALS NEEDED: - Gowns + gloves  
- Linen for draping  
- Basic Plastic Surgery Set  
- Basic Maxillo Facial Surgery Set  
- Extraction forceps  
- Drill/saw  
- Hammer + chisel  
- Dermatome + blade  
- Gauzes  
- Diathermia, mono and bipolar  
- Suction  
- Ink  
- Saline/adrenaline solution  
- Syringe + small needle  
- Syringe + IV needle to rinse  
- Knife 15  
- Sutures  
- Vaseline gauze  
- Furacine  
- Cotton wool  
- Crepe bandage
- EQUIPMENT: - Diathermia  
- Suction unit  
- Drill/saw unit
- PREPARATION PATIENT: - The patient is lying on the back.
- DISINFECTION: - Circular disinfection of the upper leg and the shoulder with Betadine solution. Disinfect the head with Betadine solution.
- DRAPING: - Drape the head with a turban. The shoulder square, one towel under the shoulder, one towel on the sternum and one towel on the nipple line. The upper leg circular, the lower leg wrapped into a towel.
- OPERATION REPORT: **Trismus part:**  
- Drawing the scar tissue that has to be removed.  
- Injection of saline/adrenaline solution into the incision lines and the intra oral mucosa.  
- Incision of the scar tissue which has to be removed.  
- Intra oral release of scar tissue with a Freer and a Williger rasp  
- Extract dentition with extraction forceps if necessary.  
- Osteotomy and removal of ipsilateral coronoid process with a reciprocal saw and hammer and chisel.  
- If necessary release of the tendon fibers of the temporal muscle which remained attached to the ascending ramus with a Williger rasp and Freer.

- If the oral aperture is not sufficient then osteotomy and removal of contralateral coronoid process and release of the tendon fibers of the temporal muscle which remained attached to the ascending ramus.
- If there are bony bridges remove them with reciprocal saw and hammer and chisel.
- Placing of the Heister forceps.
- If there is still a trismus, inspection of the ipsilateral temporo mandibular joint (TMJ).
- High condylectomy or a high gap osteotomy of the ascending ramus with a reciprocal saw and hammer and chisel.
- Preferable interposition of soft tissue to prevent recurrence of the trismus.

**Reconstructive part**

- Remove the sutures of the prefabricated Temporo Fascial flap.
- Cut the Split Skin Graft together with the temporal fascia loose from the temporal muscle with knife 15.
- Turn the flap on the temporal artery so that the split skin site becomes the inner lining of the cheek.
- Tunnel the flap above the zygomatic arch if there is enough space.
- If there is not enough space for the pedicle, remove a part of the zygomatic arch with a reciprocal saw or chisel and hammer.
- Suture the Temporo Fascial flap tensionless to the oral mucosa with Vicryl 4-0.
- Remove the sutures from the Delto Pectoral flap.
- Rotate the flap to the cheek to create a outer lining and fixate it with Monocryl or Ethilon sutures.
- Close the skin of the pedicle as far as possible with Monocryl or Ethilon sutures.
- If there is no Split Skin Graft left on the donor site of the Delto Pectoral flap during the first stage harvest a new Split Skin Graft.
- Fatten the dermatome and the donor skin with the paper of a vaseline gauze or parafine and harvest the Split Skin Graft with the dermatome and put a soaked gauze with local anesthesia solution with adrenaline on the donor site.
- Put the Split Skin Graft on the donor site of the Delto Pectoral flap and fixate it with sutures or staples.
- A tie-over bandage is necessary for good pressure during five days. Leave therefore several sutures long.
- Put a vaseline gauze on the donorskin and on top of that a unfolded Furacine gauze. Use the long sutures for fixing the package.

**BANDAGE:**

- Vaseline gauze and pressure bandage for the donor site of the Split Skin Graft and pressure bandage for the head. The shoulder with gauzes and plaster.

**SPECIALITIES:**

- After a few weeks the pedicle can be cut and a commissuroplasty may be needed.