Wound Management beyond Trunk and Extremities
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I. Face

a. *Eye*

i. ED repair vs Ophthalmological repair
   1. Refer/Consult if
      a. Involvement of **lid margin**
      b. Damage to **nasolacrimal duct system**
         i. Lacerations near nasal bridge or medial canthus
         ii. Injury w/in 6-8mm of medial canthus – consider nasolacrimal duct
         iii. Requires stent placement in lacrimal duct or can lead to excessive tearing, recurrent conjunctivitis, or recurrent stye
      c. **Full-thickness lid lac**eration
      d. Involvement of **tarsal plate**
      e. **Extensive tissue loss**
      f. **Medial canthal tendon** avulsion
      g. Visible **orbital fat** in eyelid laceration
      h. **Ruptured globe**
      i. **Intra-orbital foreign body**

ii. Tissue glues near eye?
   1. **Cut a hole in a tegaderm and place over area. Apply tissue glue and remove after application**
   2. Should the eye be inadvertently glued shut, **petroleum jelly** will loosen

iii. Suture choice?
   1. **6-0 nylon or vicryl**
   2. Remove in **3-4 days**

iv. Damage to adjacent structures? i.e. the globe
   1. Place tetracaine and then a Morgan lens
   2. Can also place one thicker suture at start of laceration and leave long tails to manipulate tissue away from globe

b. *Nose*

i. Concerns
   1. Evaluate for septal trauma/**hematoma**
      a. Will need to be drained
      b. Unilateral and small – **18 gauge needle**
      c. Larger hematoma may require **I & D**
      d. Place anterior nasal packing and remove in 2 to 3 days

e. Prophylactic antibiotics recommended to prevent infection of cartilage

2. Anesthesia
    a. Taut skin makes local infiltration difficult
    b. **Topical lidocaine** into the nasal cavity with cotton tipped swabs or nasal packing gauze soaked in 4% lidocaine

3. Exposed cartilage needs to be quickly closed

4. Suture
    a. **6-0 nonabsorbable**
    b. If laceration involves all tissue layers begin with 5-0 non-absorbable to align skin at alar margin
    c. Use 5-0 rapid absorbing suture for mucosa
    d. Do not place sutures into cartilage
    e. Remove in 3-5 days

c. *<u>Lips/Oral</u>*

i. Intra-oral mucosal lacerations **<1 cm do not need to be closed**

ii. **Large or gaping will need** closure

iii. Method
    1. No large tissue bites – may lead to bunching of the mucosa and puckering of the outside skin
    2. Place suture only in mucosa with entrance 2-3mm from wound edges.
    3. Evert edges
    4. Through-and-through laceration that DO NOT involve the vermillion border should be **closed in layers**
    5. If vermillion border is involved the first stitch should be placed to **perfectly align the vermillion border**
        a. Can leave first stich untied and use traction to help approximate the underlying tissue as the remainder is closed

iv. Suture
    1. **Mucosa 5-0 rapidly absorbed** suture
    2. **Orbicularis oris 4-0 or 5-0 absorbable** with simple interrupted or horizontal mattress
    3. **Skin with 6-0 non-absorbable**
    4. Remove in 5 days

v. No evidence for antibiotics, have patients rinse their mouths several times daily for intra-oral lacerations

d. Face/Cheeks
    i. Anatomy
        1. Consider **parotid duct and branches of facial nerve**
        2. Parotid duct opens adjacent to upper 2nd molar

    ii. Suture
        1. **6-0 non-absorbable**
        2. 4-0 absorbable if tension, but limit to avoid injury to CN VII branches
        3. Remove in 5 days

    iii. Dress with antibiotic ointment of non-adherent dressing to maintain moisture

    iv. No evidence for antibiotics

II. Nail and Nailbed
a. **Commonly associated with fracture** – xray indicated

b. Nail removal/Reattachment
    i. Indicated if nail avulsion or surrounding nail fold disruption
    ii. Anesthesia, digit tourniquet
    iii. Elevate nail off nail bed with iris scissors and longitudinal traction with hemostat
    iv. Nails can be cleaned, trephinated and re-secured in the anatomic position using **5-0 non-absorbable**
        1. **Native nail** serves as better splint than synthetic
    v. Dress in non-adherent gauze and placed in volar splint
    vi. Leave dressing for 5-7 days
    vii. Remove suture in 3 weeks
    viii. The **new nail will grow and dislodge the old in 1-3 months**

c. Subungual Hematoma
    i. **>50%, treat with trephination with 18 gauge** needle
    ii. Instruct patient to soak finger in warm water with antibacterial soap 2 to 3 times daily for 7 days

d. Simple nailbed laceration
    i. **6-0 absorbable** suture
    ii. **If small, tissue adhesive**

e. Stellate laceration
    i. Similar to simple repair

f. Severe crush/Complete avulsion

i. Attempt to **preserve the matrix fragments using 6-0 or 7-0 absorbable**
ii. Can harvest a full-thickness nail bed graft from toe (requires consult from plastics)

References / Further Reading:

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