FACIAL DANGER ZONES

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Facial danger zone 1
Facial danger zone 1 is centered around a point in the middle of the sternocleidomastoid muscle belly 6.5 cm below the caudal edge of the external auditory canal.
• It contains the emergence of THE GREAT AURICULAR NERVE from beneath the sternocleidomastoid muscle, becomes more superficial, and is thus more susceptible to injury.
Consequence of injury

- Permanent injury to the nerve results in numbness of or, painful dysesthesia of the lower two thirds of the ear & adjacent neck and cheek skin.
Surgical dissection

• After the postauricular incision is made, it is helpful to begin the dissection superficially, just deep to the subcutaneous fat, which is thin and superficial to the deep cervical fascia and the sternocleidomastoid muscle.
• The nerve is posterior to and not protected by the platysma through most of its course.

• Note:
  - Terminal branches
  - External jugular vein
Facial danger zone 2
Anatomy

- It is outlined by drawing a line 0.5 cm below the tragus to a point 2 cm above the lateral eyebrow, drawing a second line on the zygoma to the lateral orbital rim, and connecting these two lines with a third line.
• In this zone the TEMPORAL BRANCH OF THE FACIAL NERVE lies on the undersurface of the temporo-parital facia.
Consequence of injury

- Injury to the temporal branch results in paralysis of the frontalis muscle.
- Clinically, the involved side of the forehead becomes paralyzed, with resultant ptosis of the brow, asymmetry of the eyebrows.
Surgical dissection
Facial danger zone 3
Anatomy

- It is defined by a point drawn on the midmandible at a level 2 cm posterior to the oral commissure and a circle drawn with a radius of 2 cm around this point. Note the proximity to ant. Facia a. & v.
Consequence of injury

- This nerve innervate the depressor anguli oris muscle. Injury creates a noticeable and extremely distressing deformity.
Surgical dissection

- Be careful during subcutaneous dissection and using electrocautery
Facial danger zone 4
Anatomy

- It is deep to the parotid fascia. It is outlined by placing a mark on the highest point of malar eminence, another one on the mandibular angle, and a third mark at the oral commissure.
This triangle contains the ZYGOMATIC and BUCCAL branches of facial n.
Consequence of injury

- Injury to these nerves can result in paralysis of the zygomaticus major & minor m. and levator labii superioris alaeque nasi m., causing the upper lip and oral commissure on the affected side to sag.
Surgical dissection
Facial danger zone 5
Anatomy

- It is defined by a circle with a RADIUS OF 1.5 CM DRAWN AROUND THE SUPRAORBITAL FORAMEN.
Consequence of injury

- Injury to SUPRAORBITAL & SUPRATROCHLEAR branches results in numbness or painful dysesthesia of the medial forehead, scalp, upper eyelid, and nasal dorsum.
Surgical dissection
Facial danger zone 6
Anatomy

- It is described by a circle with a 1.5 cm radius around the infraorbital rim, along the line down through the midpupil and second mandibular premolar.
Consequence of injury

• Injury to INFRAORBITAL N. lead to numbness of the lateral nose, cheek, upper lip, and inferior eyelid
Surgical dissection

- During:
  - Subcutaneous dissection
  - Extended subperiosteal face lift
  - Rhinoplasty