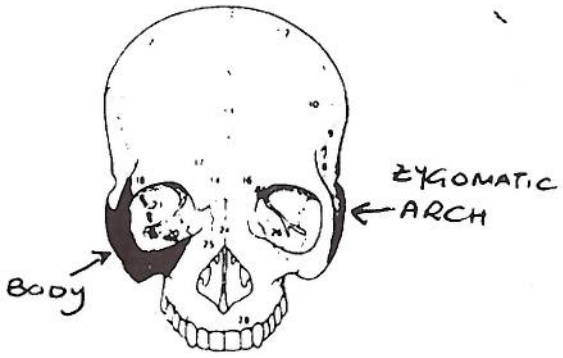
Zygomatic Complex Fractures

SYN: Cheek bone fractures.

These are fractures not just involving the zygoma but usually multiple bones - usually the - maxilla and zygomatic process of the temporal bone. as well.

AETIOLOGY.

Usually - Assault
- Sport (football)



CLINICAL FEATURES.

Consider two main types:

(1) Zygomatic arch fractures often minimal swelling but depression side head over zygomatic arch and/or difficulty opening and closing mouth due to contusion to masseter and temporalis muscles.

(2) Zygomatic body/complex fractures.

- Periorbital swelling and echymosis

- Subconjunctival haematoma with no posterior limit

- Numbness over the distribution of the infraorbital nerve (numbness/tingling cheek/upper lip/side nose/lower eyelid.

- *Palpation of bony steps along infraorbital margin, lateral wall of orbit, malar - maxillary buttress (palpated orally over the area of the upper 1st molar tooth) and along the zygomatic arch.*

- *Difficulty opening mouth and/or chewing.*

- *Facial asymmetry - often best assessed by standing behind and viewing from above with palpation over zygomatic arches, infraorbital rims and malar prominence.*

SPECIAL EXAMINATION.

Eye injury is not uncommon. Evaluation of eye movement, visual acuity, presence of monocular and binocular diplopia and opthalmoscopic evaluation required.

RADIOGRAPHS.

(1) Plain radiographs of face but

(a) Zygomatic arch specifically obtain a submentovertex view of the skull to be included.

(b) Zygomatic complex - 10 + 30 degree occupitomental views probably most important. Submenovertex also extremely helpful.

Generally:

If diplopia present CT scan. If zygoma part of concomittant orbital, frontal bone, midface fracture - CT scan.

TREATMENT.

(1) Conservative treatment but still needs review.

(2) Surgical management.

- Elevation - involves concertining out comminuted fracture.

- Open reduction.

(Most centers show that 40 - 50% of zygomas require open reduction. Critical assessment by some major trauma centers demonstrate open reduction is often not done enough but given this slight rotations/depressions of the zygoma are not often noticed by patients).

Open reduction and fixation is performed via oral and cosmetically acceptable facial approaches. Microplates are often used to fixate fractures.

Fractures are inevitably comminuted because of thin structure of bones.

PRE-OPERATIVE TREATMENT.

(1) Generally does not require urgent attention.

(2) If patient is very swollen - usually will allow swelling to subside to permit better evaluation of asymmetry/deformity present.

(3) May consider immediate attention prior to development of swelling if seen early.

(4) Antibiotics generally not indicated. Consideration to steroid (8mg Dexamethosone) if early intervention anticipated to reduce swelling.

POST OPERATIVE MANAGEMENT.

(1) Routine Post Operative Care

(2) Report immediately if any significant eye pain or deterioration in vision

(3) No pressure over injured area

(4) Ice pack

(5) Nurse semi reclined when awake

(6) Steroids to reduce swelling

(7) Antibiotics if open reduction

(8) Post Operative radiographs

DISCHARGE INSTRUCTION.

(1) No pressure injured side face

(2) Post operative medication - analgesics and/or antibiotics

(3) Review 5 - 7 days