

TMJ ANKYLOSIS

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Definition

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"inability to open mouth due to either a fibrous or bony union between the head of the condyle and the glenoid fossa"

Etiopathology

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- Trauma
- Infections
- Inflammation
- Systemic diseases
- Other causes
prolonged MMF, trismus

Classification

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1. False / True Ankylosis
2. Extra-articular / Intra-articular
3. Fibrous / Bony
4. Unilateral / Bilateral
5. Partial / Complete

Topazian classification

stage I – Ankylotic bone limited to condyle

stage II - Ankylotic bone extending to sigmoid notch

stage III – Ankylotic bone extending to coronoid process

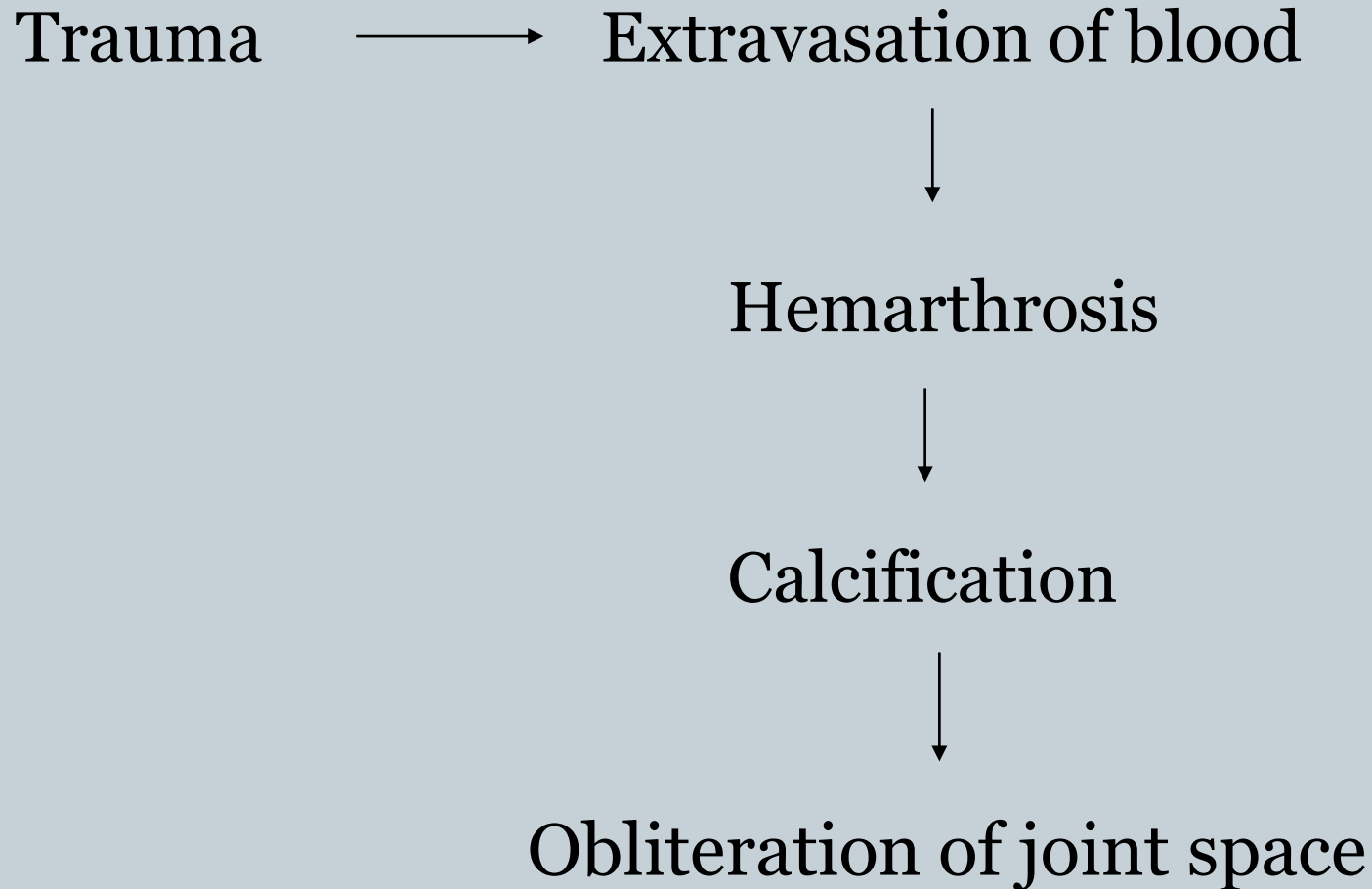
Sawhney's Gradings (1986)

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- Type I – less distortion of condyle
- Type II – bony fusion, no involvement of coronoid / sigmoid notch
- Type III – bony block bridging across ramus & zygomatic arch
- Type IV – bony block b/n ramus & skull base

Pathogenesis

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Clinical features

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- Facial asymmetry
- Deviation of mandible to affected side
- Hypoplastic mandible
- Roundness of face on affected side
- Antegonial notch
- Ipsilateral posterior cross bite
- Absence of condylar movements on affected side



QUIZ

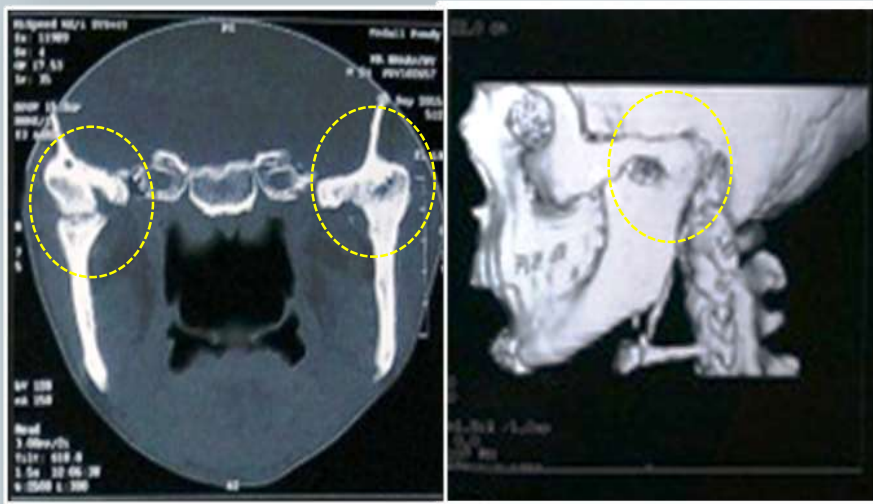
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Radiographic features

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- OPG
 - both joints seen
- Lateral oblique
 - AP diameter of condyle
- PA view
 - mediolateral extent
- CT scan



MANAGEMENT

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- Always surgical

Aims & objectives

- release of ankylosed mass
- creation of gap
- creation of functional joint
- reconstruct joint & ramus height
- prevent recurrence

SEQUELAE OF UNTREATED ANKLOSIS

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- Impairment of normal facial growth and development.
- Speech and nutritional impairment.
- Respiratory distress.
- Malocclusion
- Poor oral hygiene
- Multiple carious & impacted teeth.

Surgical approaches

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- Preauricular
 - Dingman's
 - Al Kayat Bramley
 - Blair's
- Submandibular (Risdon's)
- Postramal (Hind's)
- Endaural
- Postauricular
- Modified Rhytidectomy
- Hemicoronal / Bicoronal

Surgical techniques

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- Condylectomy
- Gap arthroplasty
- Interpositional arthroplasty
- Joint reconstruction

Condylectomy

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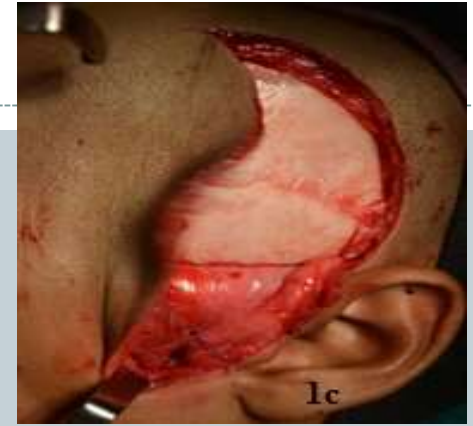
Interpositional Arthroplasty with temporalis myofascial flap



Alkayt bramhley incision



Osteotomy



Temporalis fascia in situ



Mouth opening



Closure

Gap Arthroplasty

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Preauricular incision



Osteotomy



Mouth opening



Closure

COMPLICATIONS

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During surgery

- Haemorrhage – Primary
Secondary
- Facial Nerve - neurapraxia
- Damage to parotid, EAM,
- Damage glenoid fossa & middle cranial
fossa

Post op

- Infection
- Open bite
- Recurrence of ankylosis
- Otitis externa/ otalgia
- Facial scarring

Mouth opening exercise

- as early as first postoperative day
- with gradual increase in its intensity.

Aggressive physiotherapy

- who had recurrent TMJ ankylosis



