Facial Trauma and my Craniofacial approach

Tetsuji Uemura

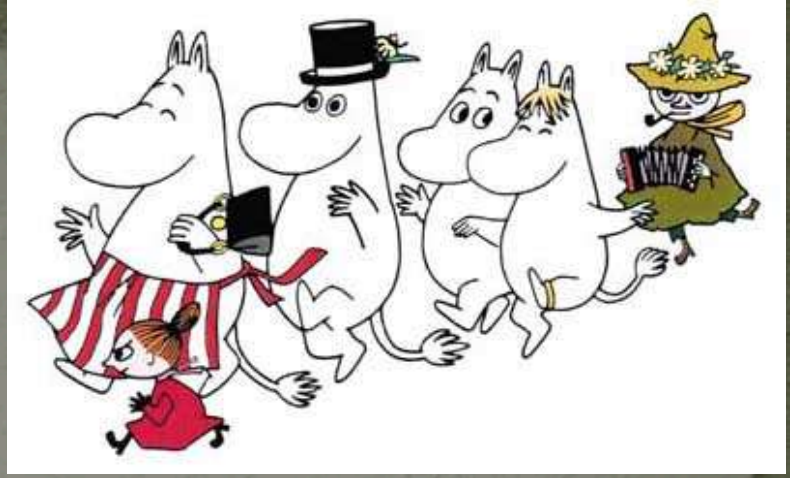
Professor of Plastic surgery in Saga University Hospital,Japan

Visiting Professor of PRS in Helsinki University

Sabbatical During 13rd April to 14th October,2015

Lecture in Toolo hospital,Helsinki(8:00-8:45 , 25th September,2015)

The theme today



- **Facial Trauma (30ms)**

  Craniofacial approach
- **My Curriculum Vitae. in Plastic Surgery through 28 ys (2ms)**
- **Diabetic Foot: the Global Collaboration research in Saga university and Helsinki university (3ms)**

Facial Trauma

1、 Tessier ‘s Modern Craniofacial Surgery

2、 My Craniofacial approach

a, Key points of Facial Diagnosis

b, Movie presentation

Transconjunctival approach to orbital floor

Bicoronal scalp flap to Cranium

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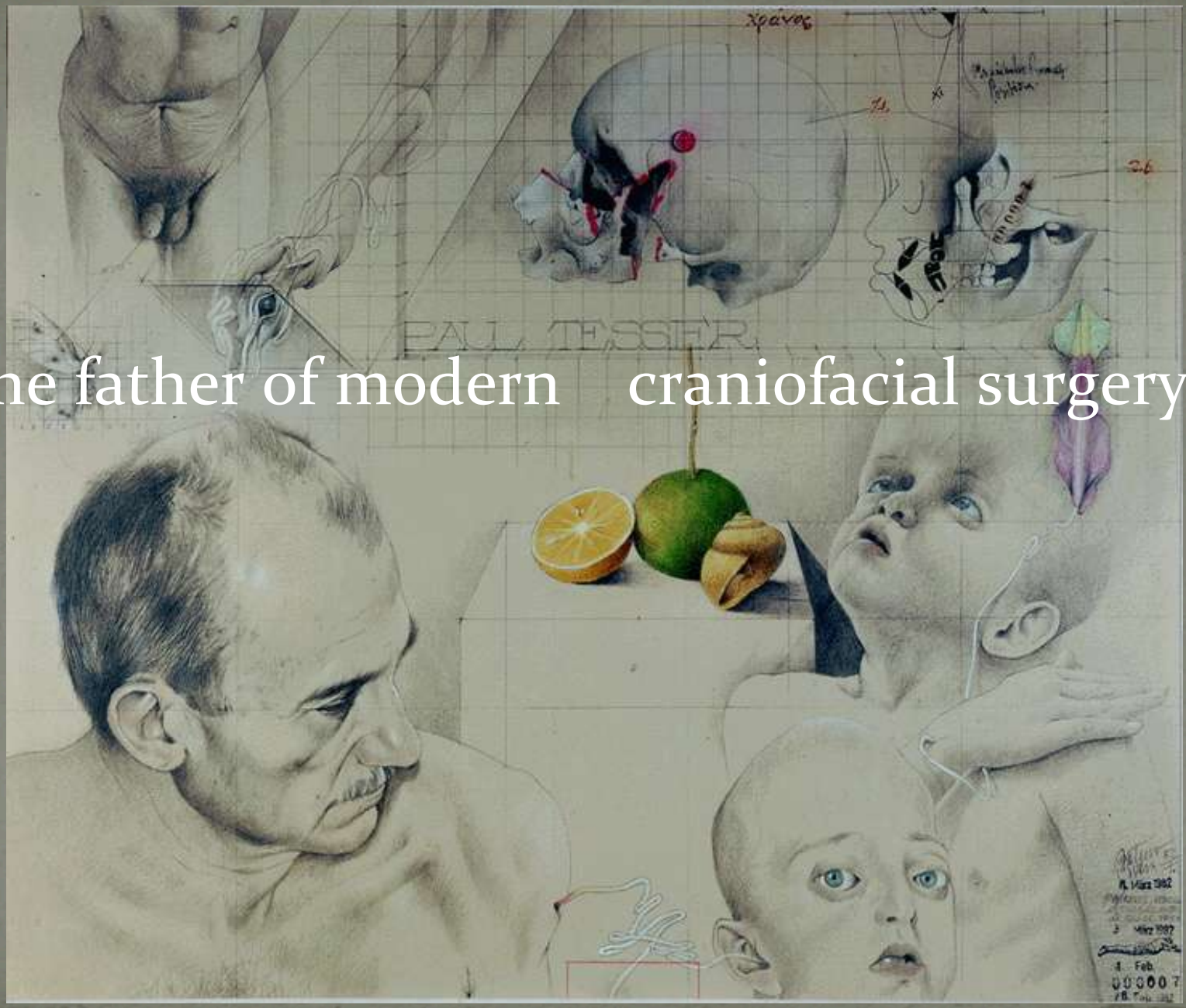

The father of modern craniofacial surgery

Paul Tessier

- Creator of a New Surgical Specialty
- the father of modern craniofacial surgery
- Pioneering plastic surgeon
- died on June,2008 aged 90

Paul Louis Tessier

- was born in August 1917 at Heric, near Nantes, on the French Atlantic coast.
- His father was a wine merchant
- His grand father was a black-smith

  (may be to lead to craniofacial skills)

References about modern craniofacial surgery

- In the mid 1950‘s Dr. Tessier began innovative work on finding a way to perform osteotomies to correct congenital midfacial retrusion、、、

  Dr. Tessier had improved on his initial work by providing exposure for much of the procedure through a coronal approach, he had begun to section the arch rather than the body of the zygoma, and he placed bone grafts、、、、
- During the late 1960's and the 1970's, Dr. Tessier developed all of the procedures that are currently used in performing craniofacial surgery: transcranial and subcranial correction of orbital dystopias such as orbital hypertelorism, correction of the facial deformity,,

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Craniomaxillofacial Trauma

A System of Multidisciplinary Management by Members of the Australian Craniofacial Unit

To Tets with my very best wishes
David John David
11.3.96

EDITED BY

D. J. David

Head of Department of Plastic and Reconstructive Surgery and Australian Craniofacial Unit, Women's and Children's Hospital and Royal Adelaide Hospital, Adelaide, South Australia

D. A. Simpson

Clinical Professor of Neurosurgery, University of Adelaide; Honorary Neuropathologist, Institute of Medical and Veterinary Science; Senior Research Associate, National Health and Medical Research Council Road Accident Research Unit, University of Adelaide, Adelaide, South Australia

Questions for anatomy in the Face

- Question 1

  How many facial bone ?

- Question 2

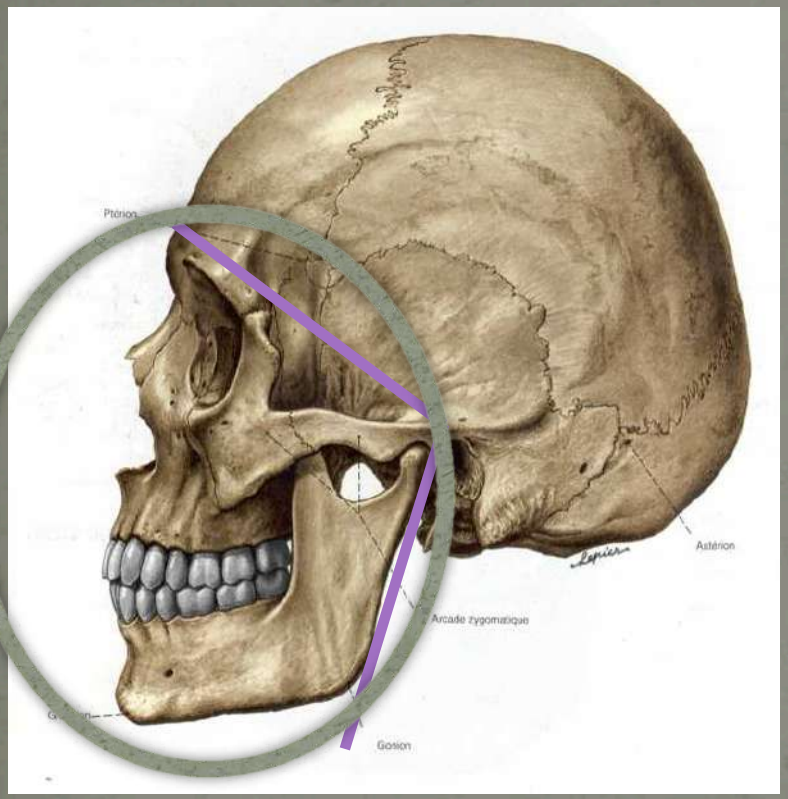
  How many cranial bone ?

- Question 3

  How many bones in the orbit ?

Question 1

How many facial bone ?

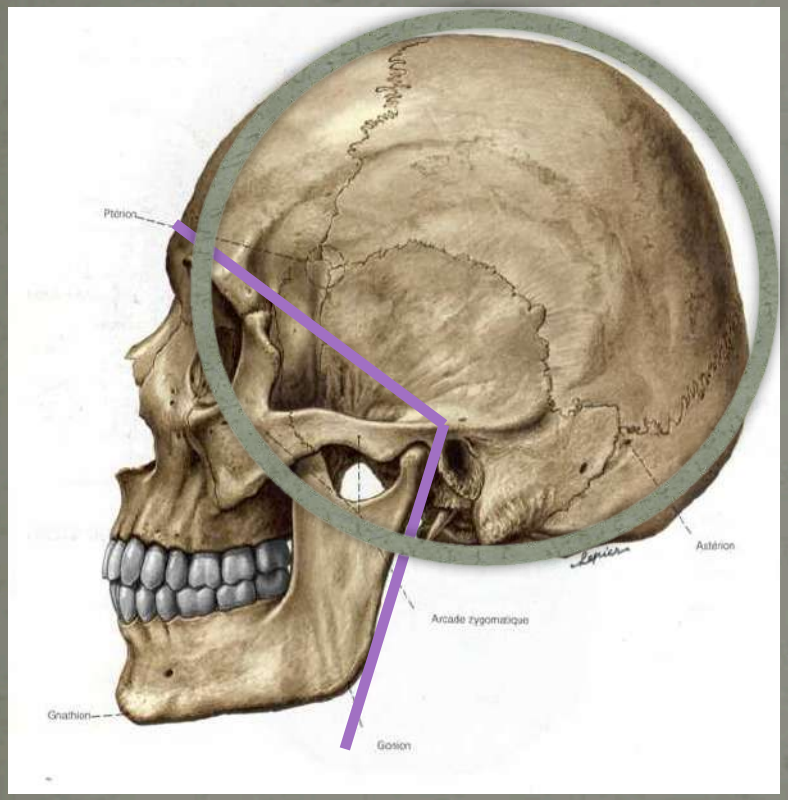


- 2 x Inferior Nasal Conchae
- 2 x Lacrimal Bones
- 1 x Mandible
- 2 x Maxillae (pl.); Maxilla (sing.)
- 2 x Nasal Bones
- 2 x Palatine Bones
- 1 x Vomer
- 2 x Zygomatic Bones

14 facial bones

Question 2

How many cranial bone ?

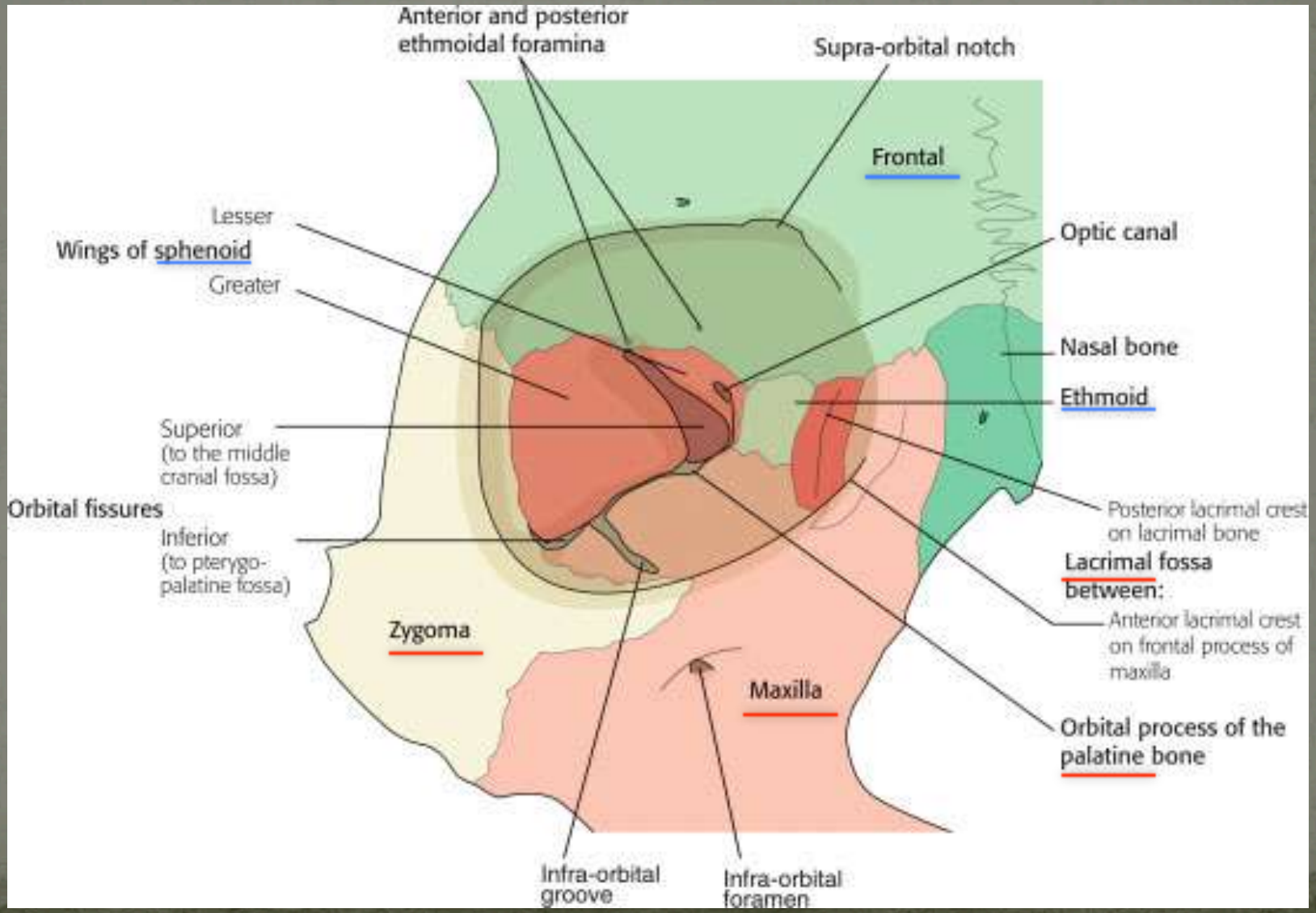


- 1 x Ethmoid Bone
- 1 x Frontal Bone
- 1 x Occipital Bone
- 2 x Parietal Bones
- 1 x Sphenoid Bone
- 2 x Temporal Bones

8 cranial bones

Question 3 How many bones in orbit ?

Orbit: 4facial bones and 3cranial bones



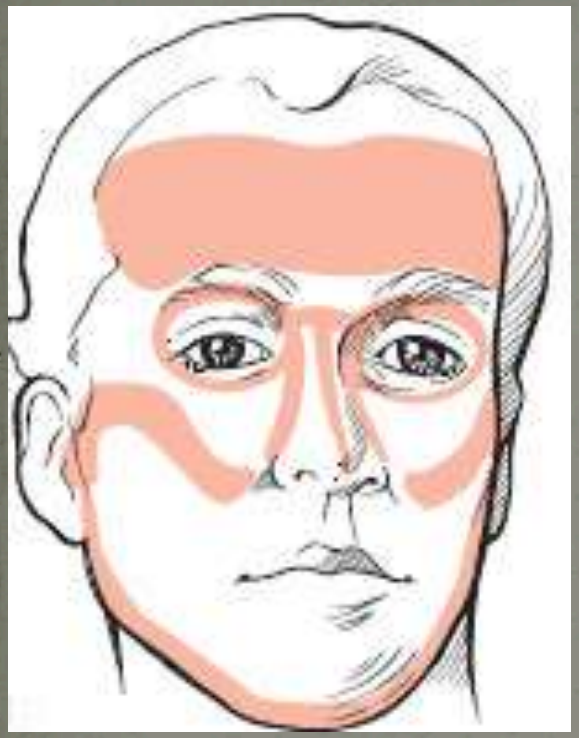
Orbital Fracture

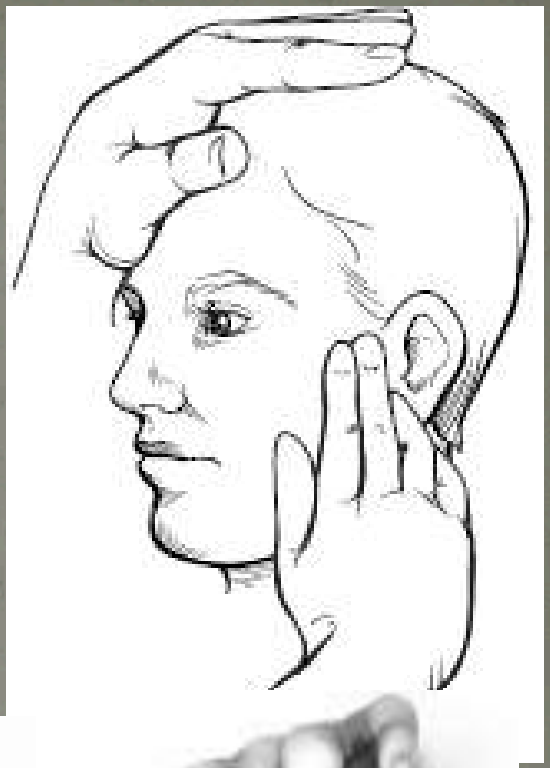
- zygomatic fracture
- blow out(orbital floor /medial wall) fracture
- Nasal-ethimoidal fracture
- LeFort (II,III)Maxillary fracture
- frontal(orbital roof)fracture

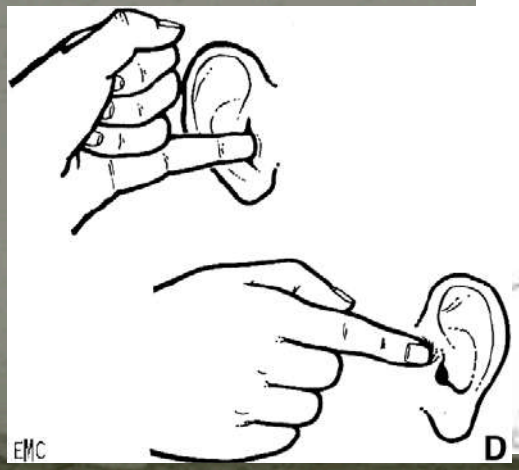
Diagnosis of facial fracture

- Clinical assessments
  history
  inspection
  airway , conscious level
  examination(head to toe)
  craniofacial palpation
- Diagnostic imaging
  Standard radiography(X ray,CT,3DCT)
  MRI,Ultrasound etc

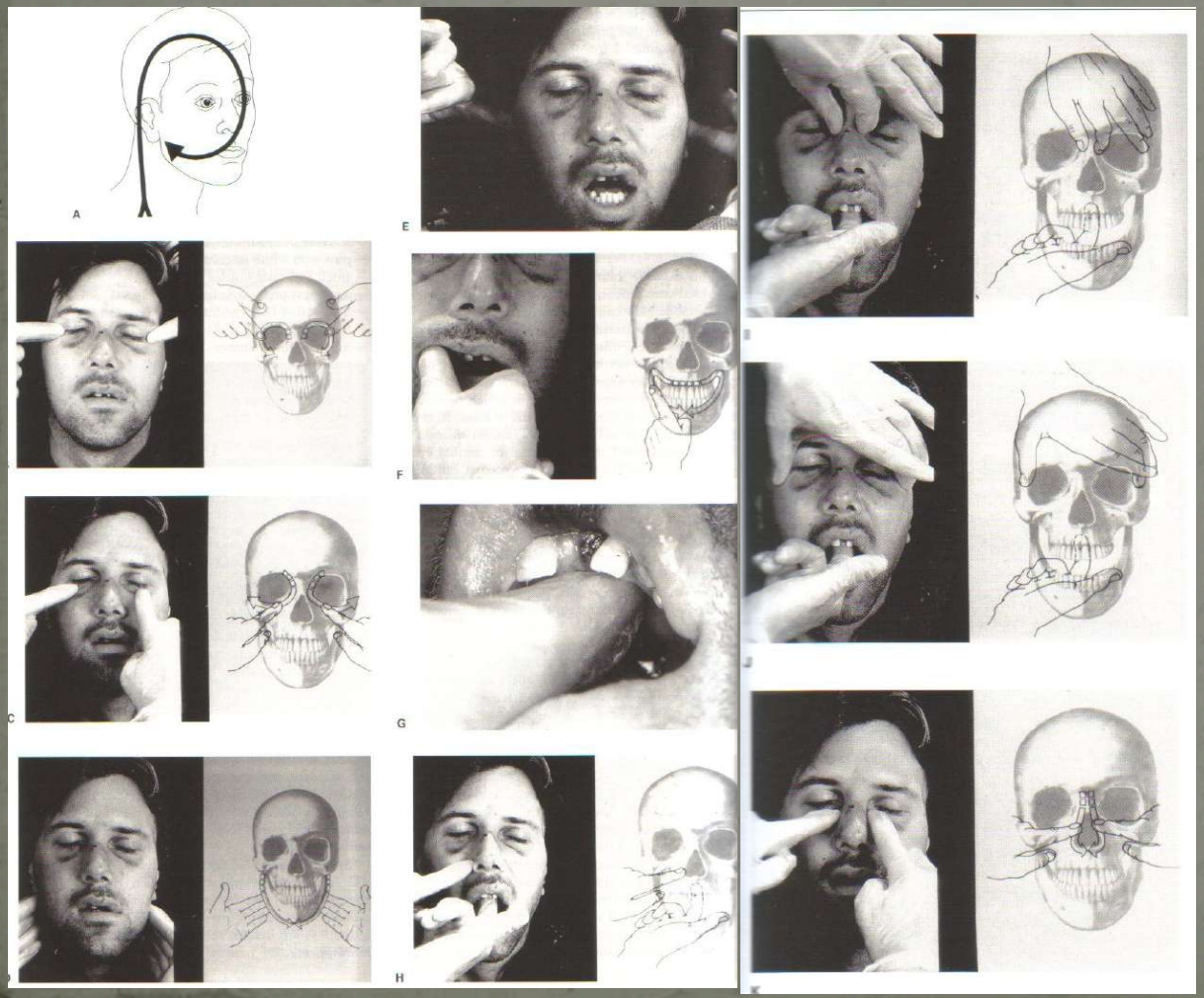
Craniofacial palpation



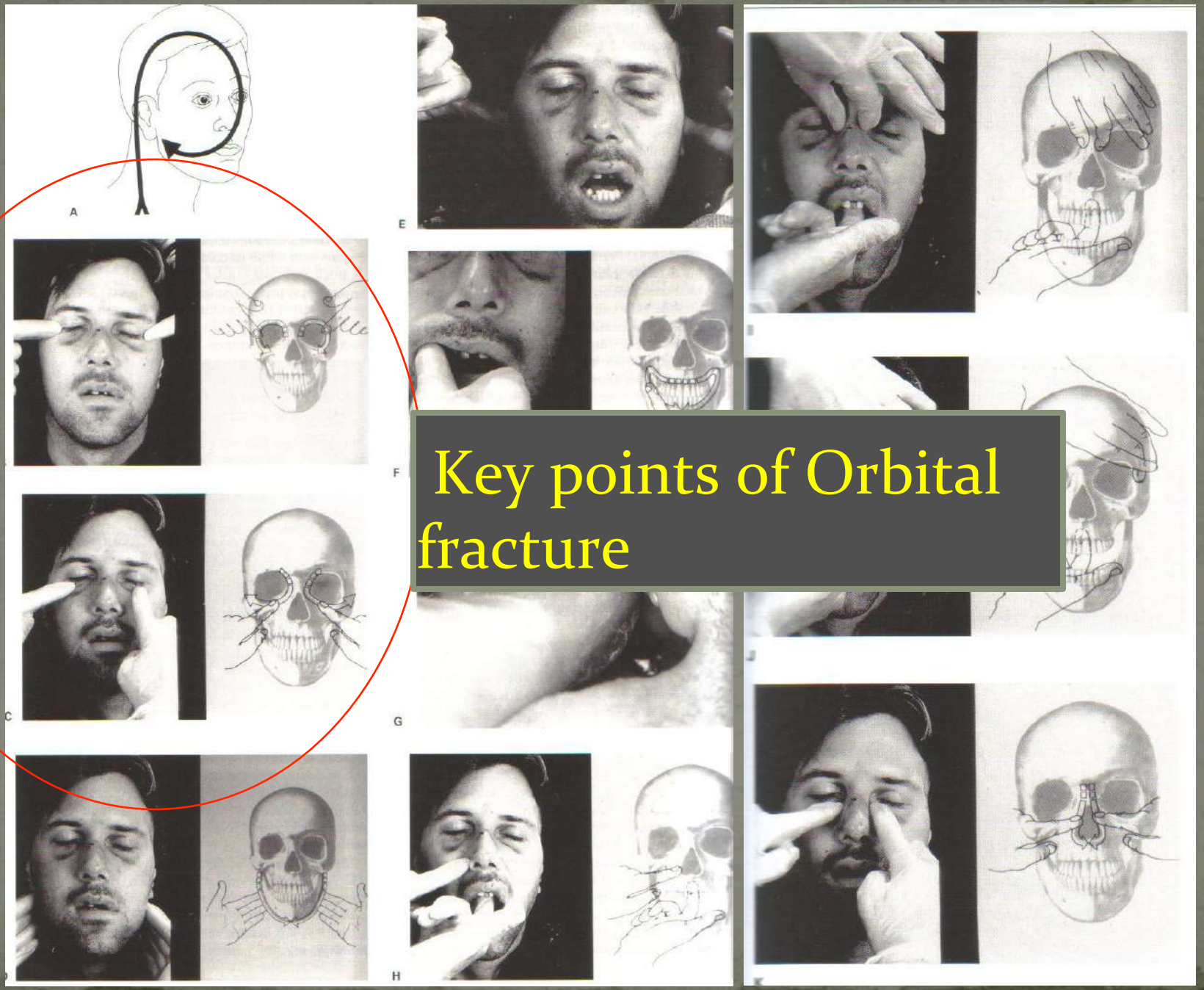




craniofacial palpation technique "P"

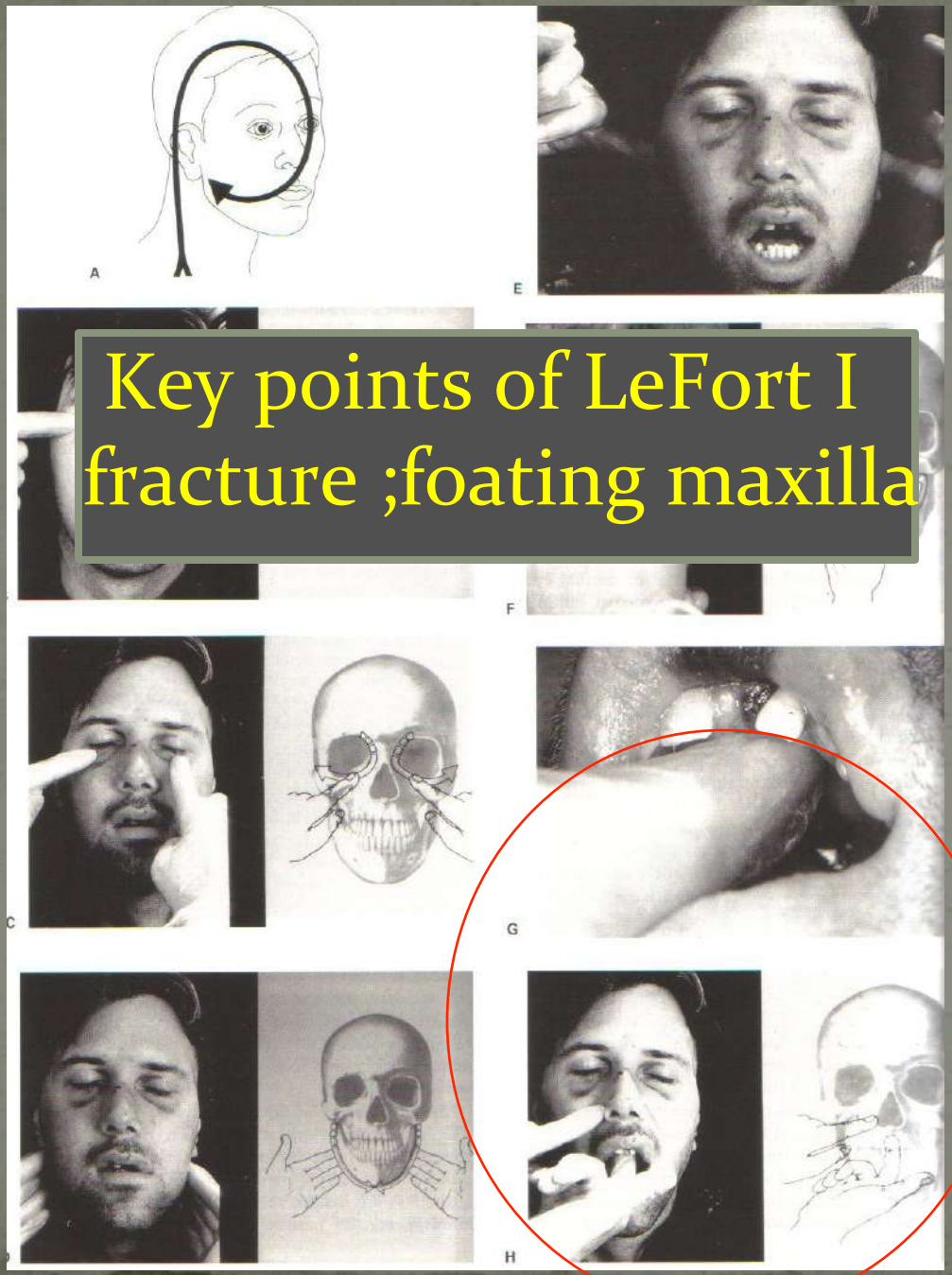


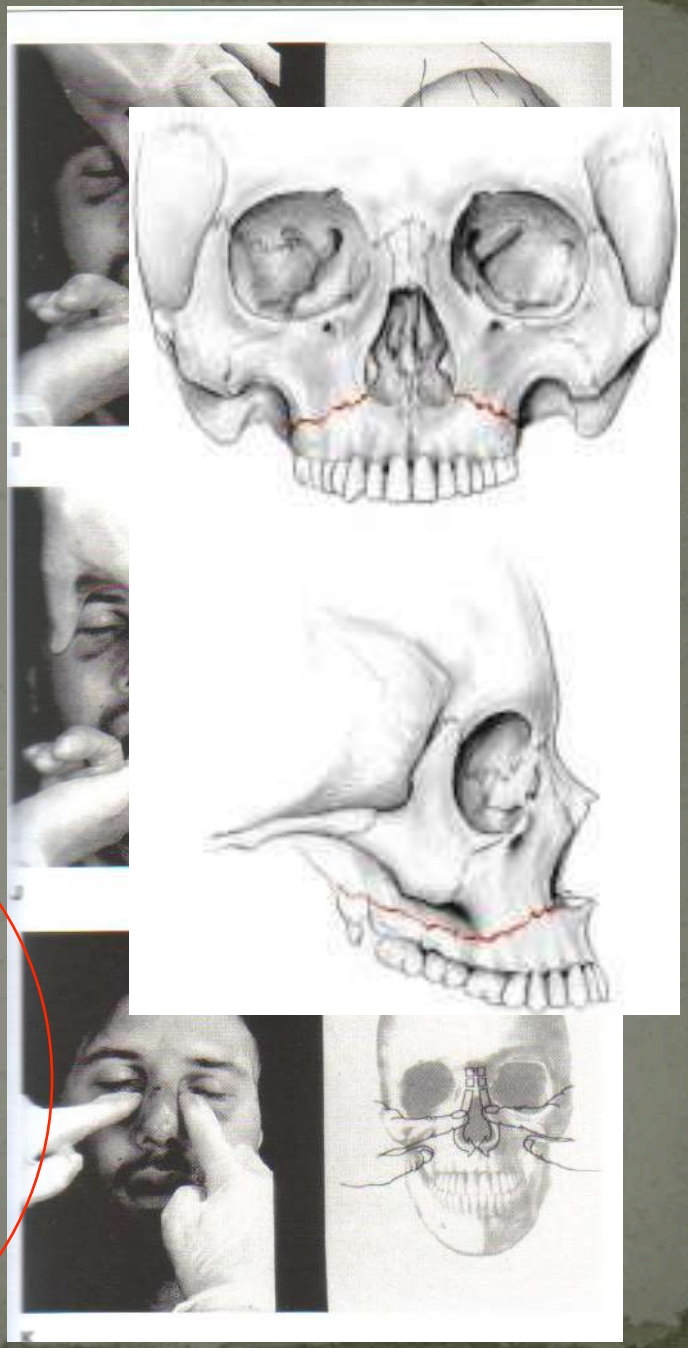
It begins from neck , works face moves down to the mouth.



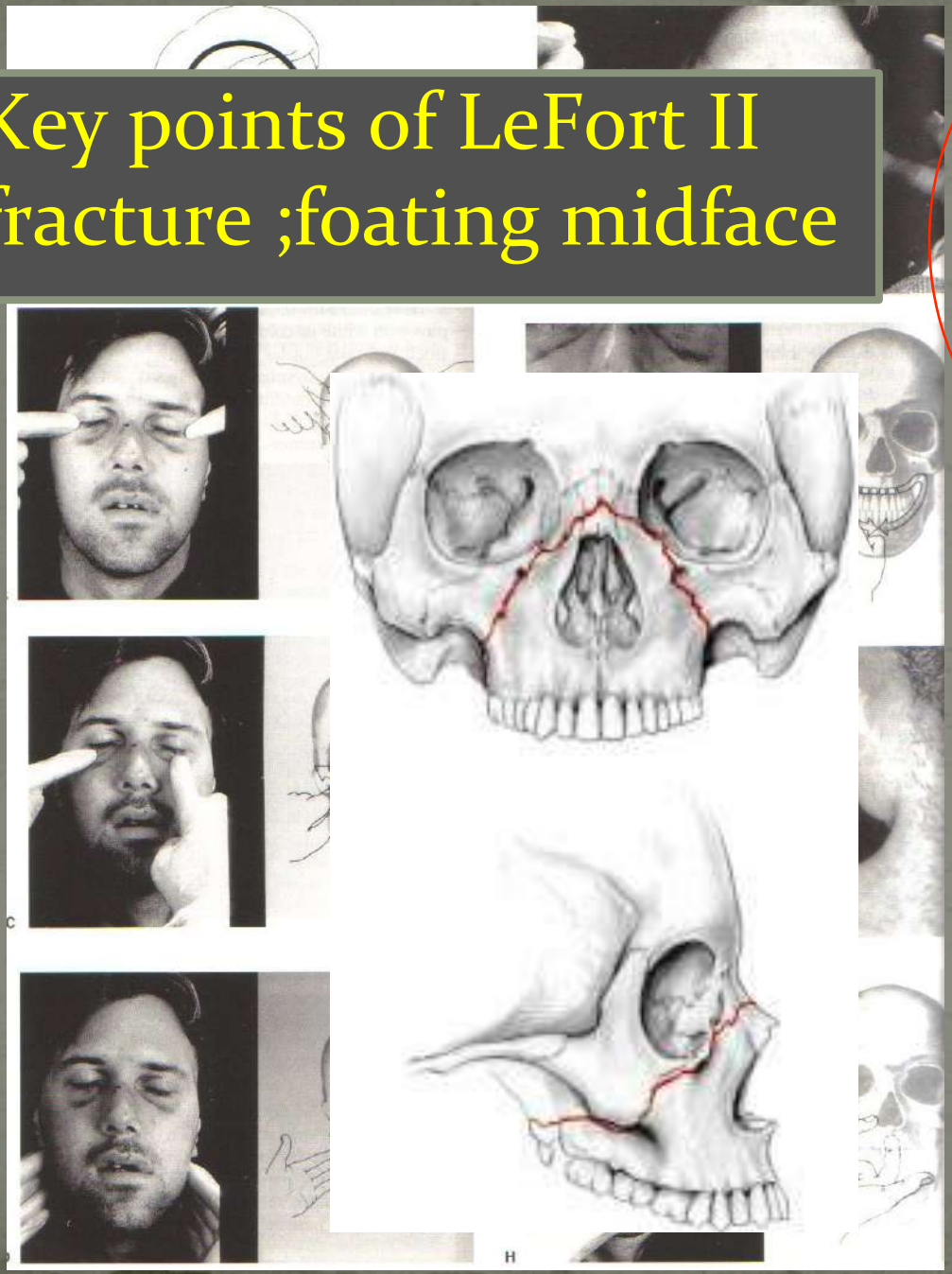
Key points of Orbital fracture

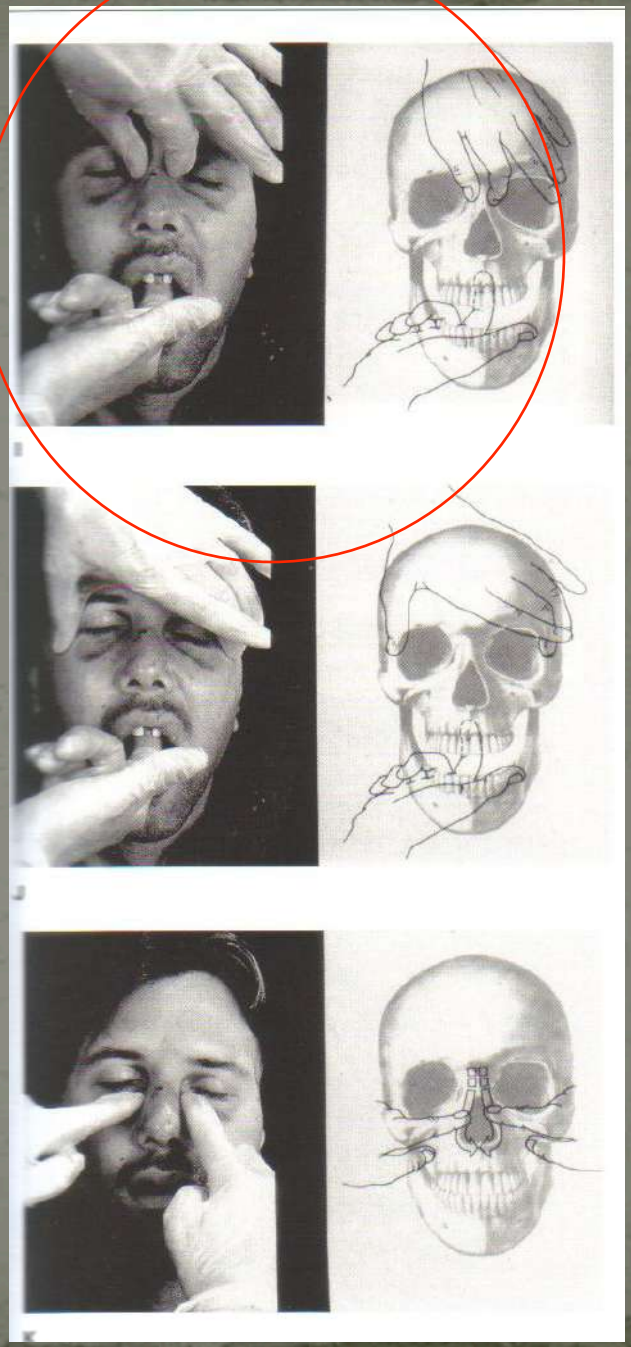
Key points of LeFort I fracture ;foating maxilla



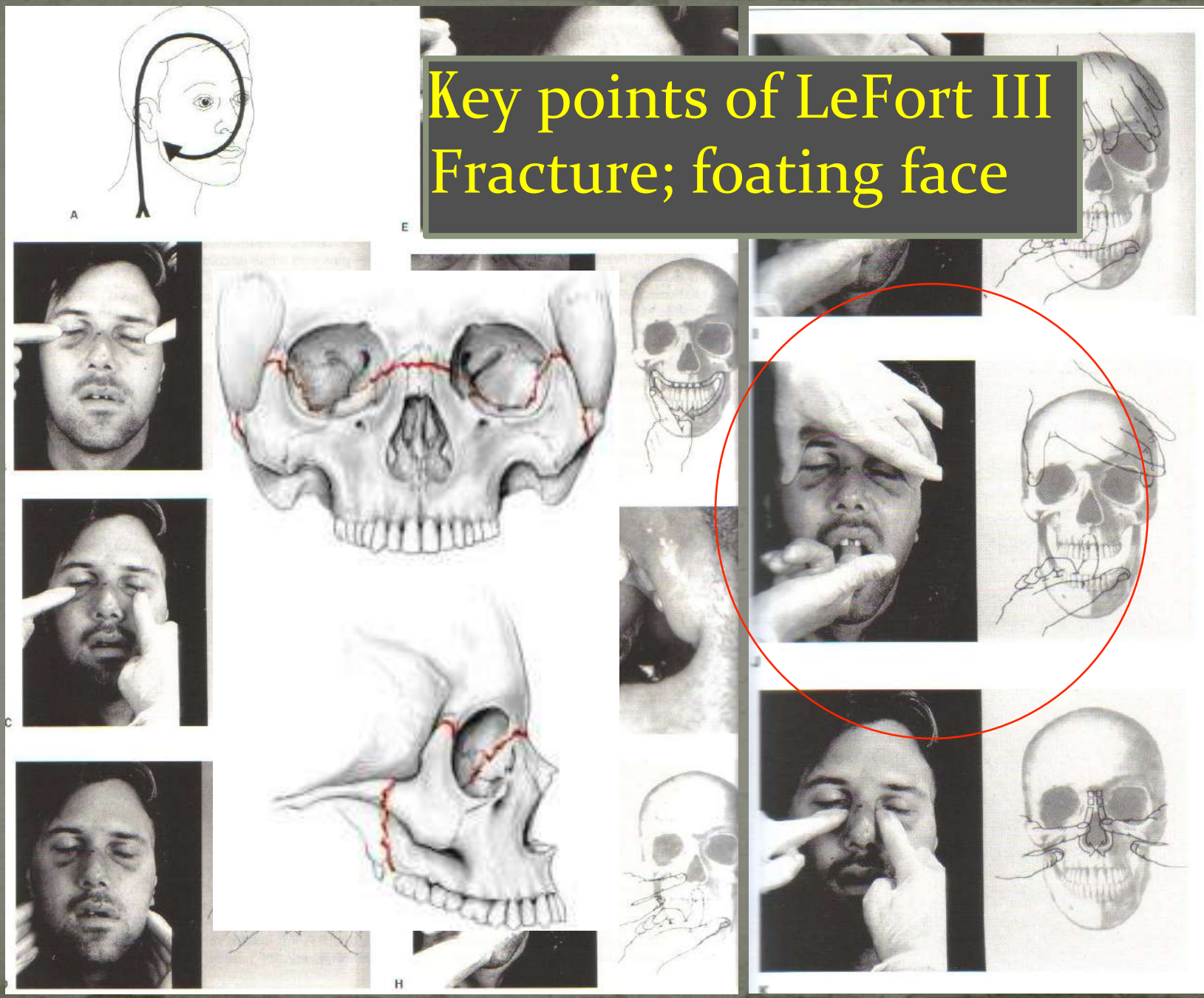


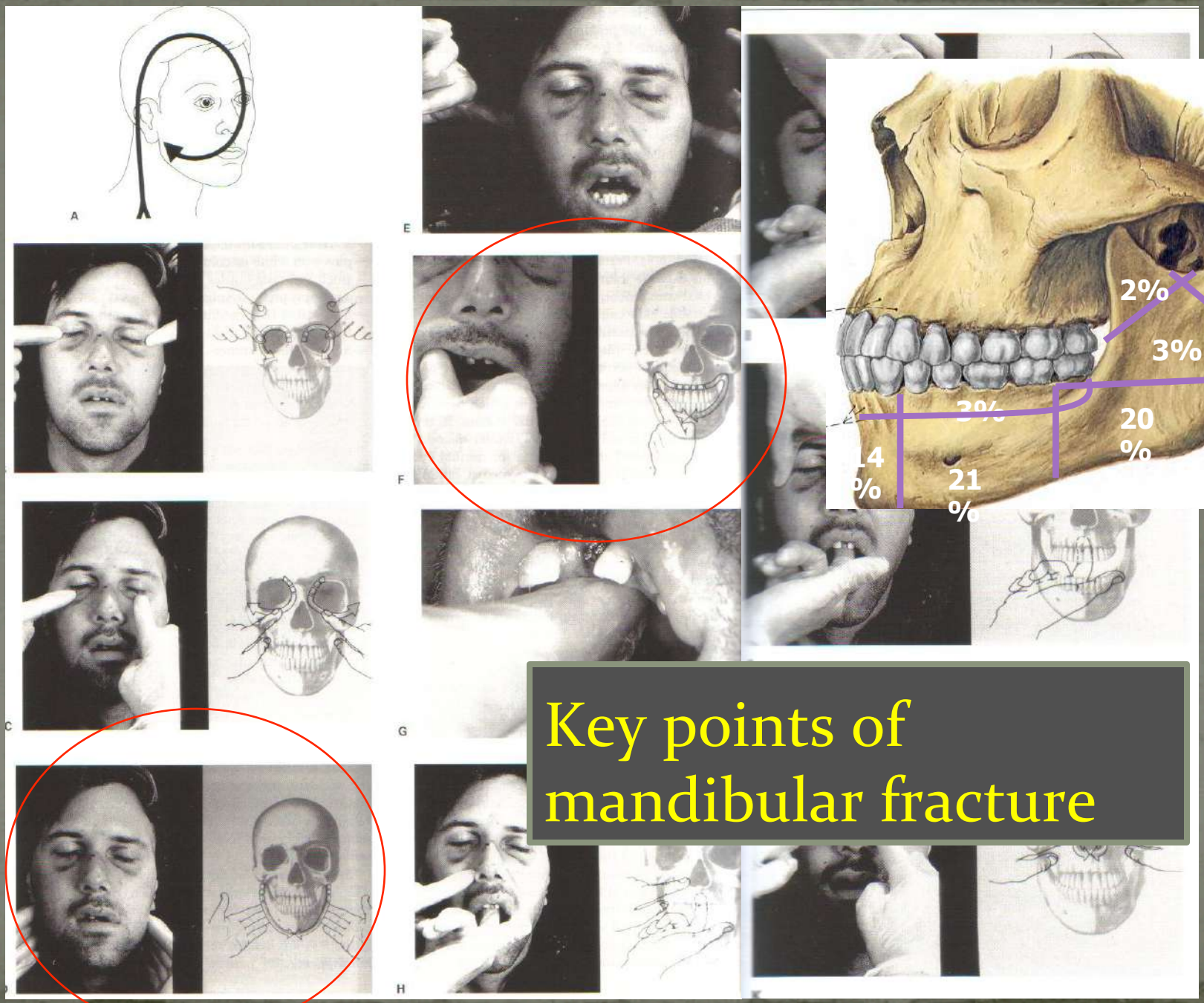
Key points of LeFort II fracture ;foating midface





Key points of LeFort III Fracture; foating face





Key points of mandibular fracture

Facial Trauma

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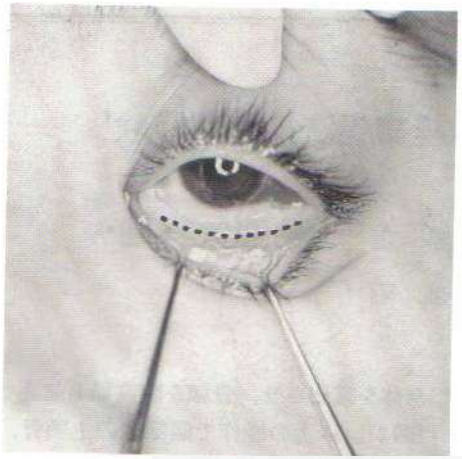
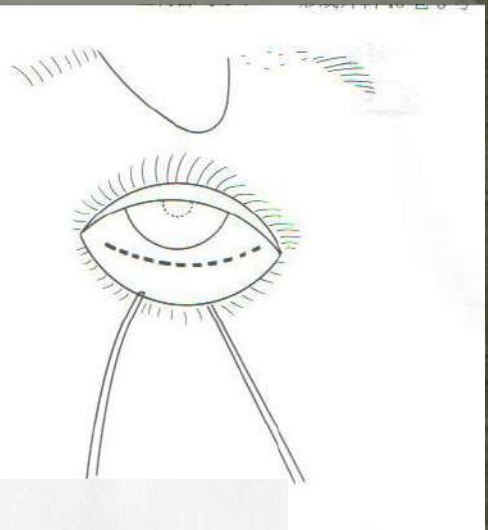
Transconjunctival approach to orbital floor

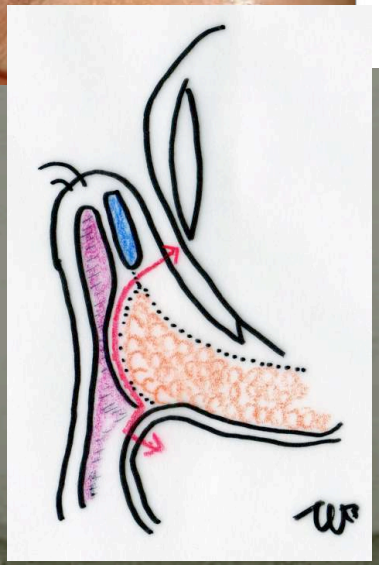
Bicoronal scalp flap to Cranium

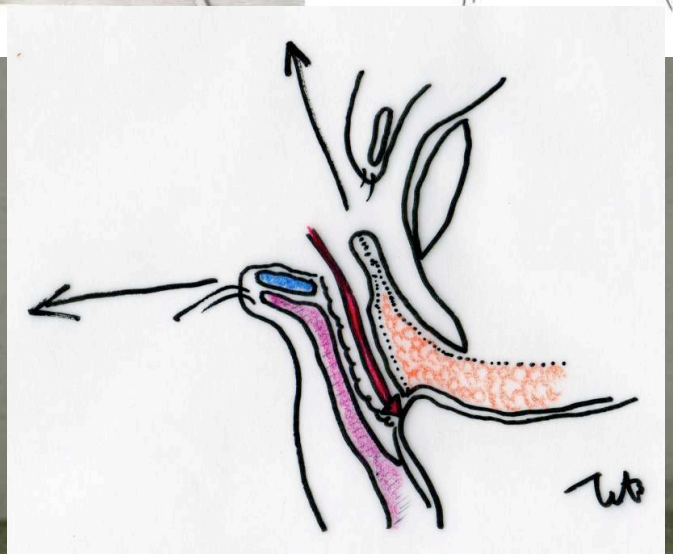
Modern Craniofacial surgery

Transconjunctival approach to orbital floor





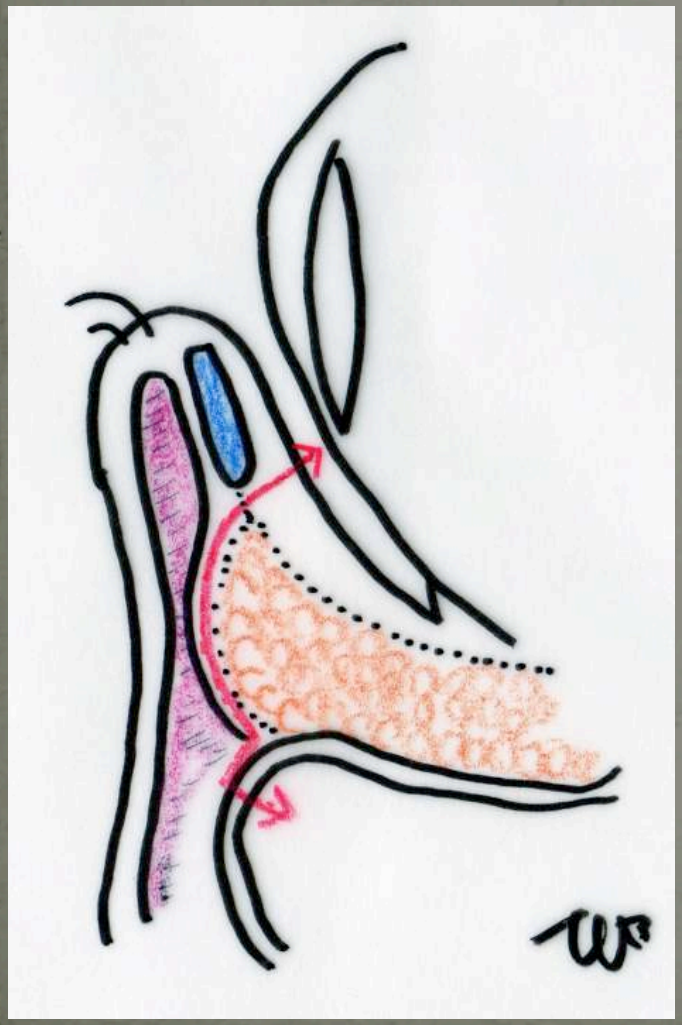


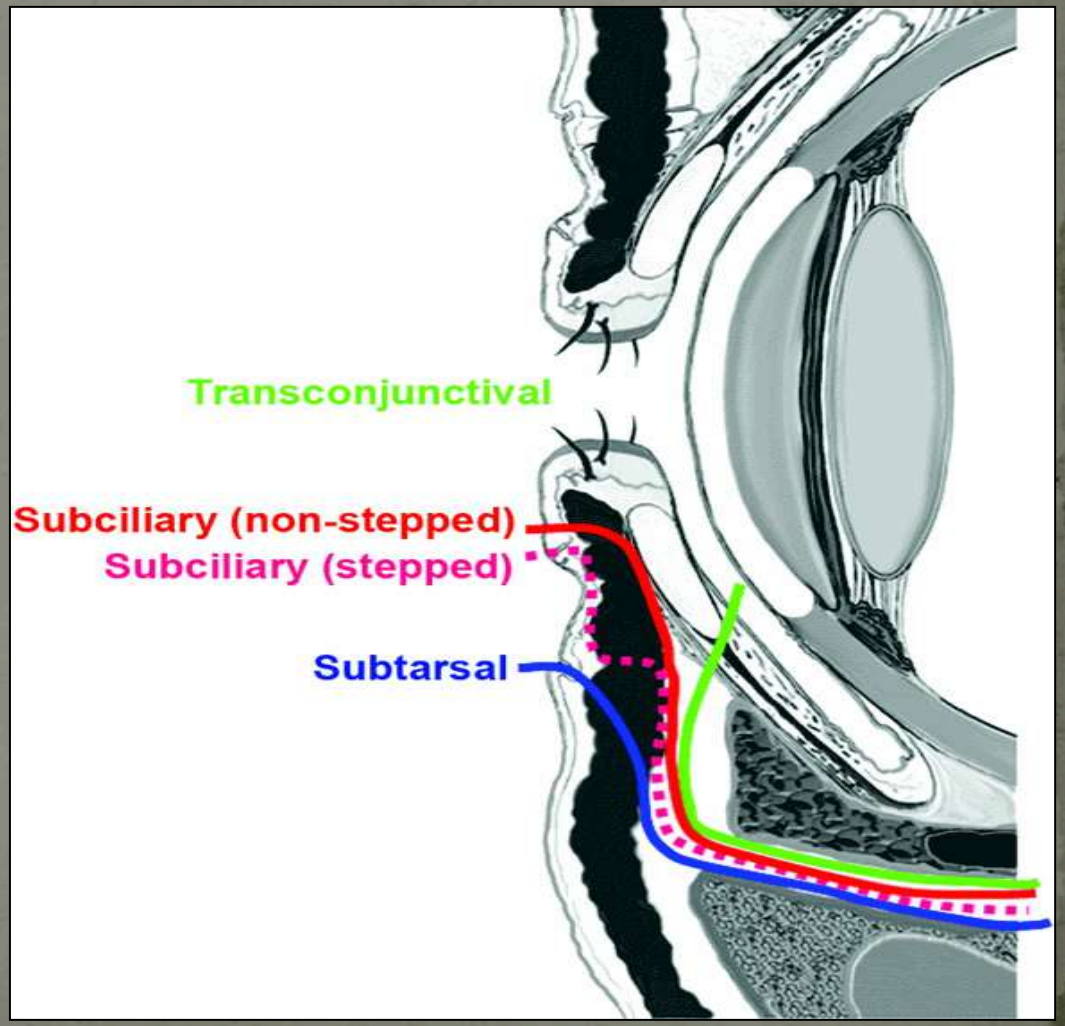


Transconjunctival approach to orbital floor

- Bourquet first reported the transconjunctival approach in 1924 as an approach he pioneered for the removal of lower eyelid fat.
- As the size of the incision in his original method was too small, a favorable visual field could not be obtained. Tessier conducted a follow-up study and expressed initial hesitation regarding the use of the approach.
- In 1973, however, Tessier did employ the Bourquet technique to approach the orbital floor and maxilla in the treatment of maxillofacial anomalies and traumas in 20 patients. He described in detail the methods for approaching the orbital floor, medial wall, lateral wall, maxilla and zygoma and documented the usefulness of the approach

Approach to the orbital floor

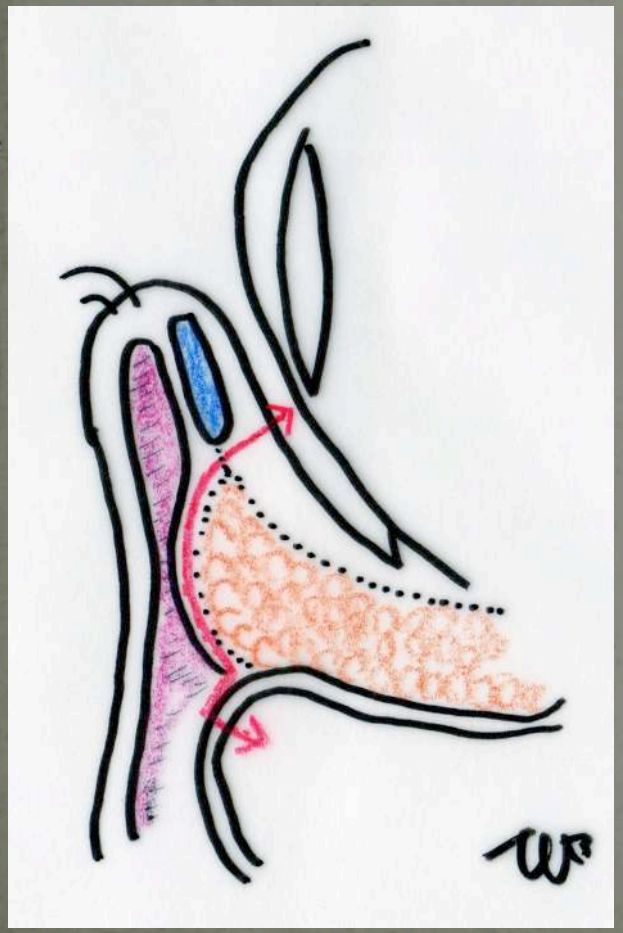


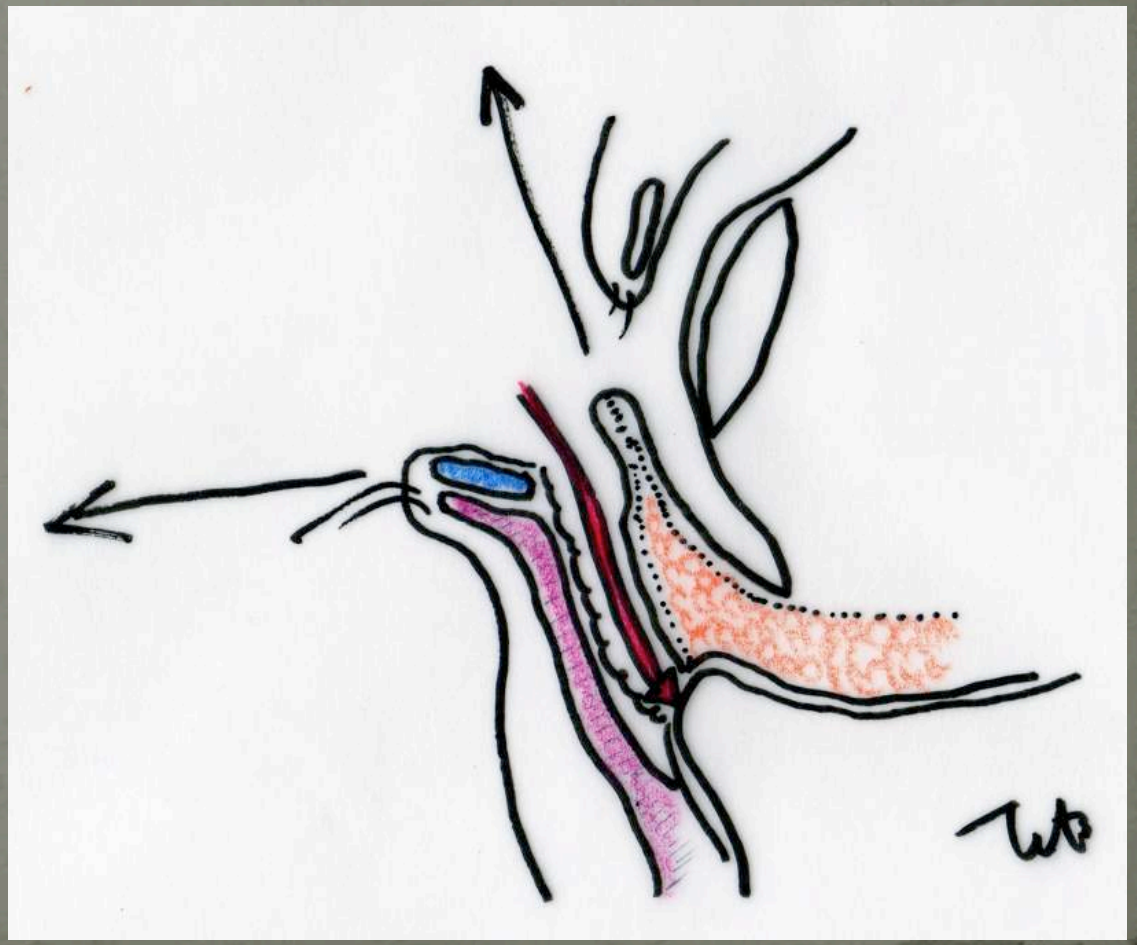


Transconjunctival approach for zygomatic fracture :A single surgeon's experience of over 20 years with 46 East-Asian patients

Tetsuji Uemura, MD et al,

Submit to PRS now



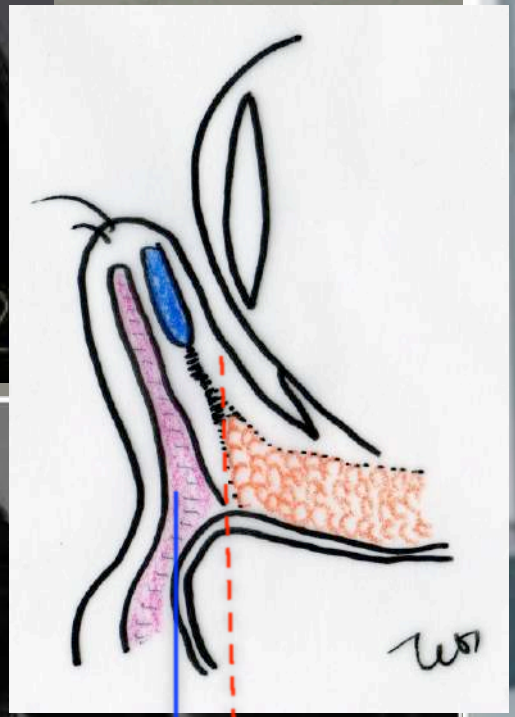


Transconjunctival approach for zygomatic fracture :A single surgeon's experience of over 20 years with 46 East-Asian patients Tetsuji Uemura, MD et al,

- **Purpose:** To let experts evaluate a single surgeon's experience with a combined transconjunctival and intraoral upper vestibular approach in the repair of zygomatic fractures encountered in 46 East Asian patients that he treated over the past 20 years.
- **Methods:** Patients were identified from a database, and a retrospective case note review was conducted. A total of 67 conjunctival, and secondary, incisions were made on the 46 patients for zygomatic fractures. All operative procedures were performed using a combination of transconjunctival and intraoral upper vestibular approach to repair zygomatic fractures.

- **Results:** The infraorbital rim and/or lateral buttress and/or lateral orbit was stabilized with titanium miniplates in 28 patients, and with absorbable miniplates in 11 patients. Seven patients had only reduction with no plate systems. Four cases needed additional canthotomy besides a conjunctival approach. No ectropion or entropion developed in any of the patients. Complications included eyelid laceration during surgery (n=1), herniation of conjunctiva (n=1), temporary pyogenic granuloma of conjunctiva after surgery (n=1), and temporary entropion in a secondary incision (n=1).
- **Conclusions:** A combined transconjunctival and intraoral upper vestibular approach in repairing zygomatic fractures is simple, easy, and effective, leaving no conspicuous facial scars. It is vitally important, however, that the surgeon master the technique of transconjunctival approach well before he has good results in East Asian patients.

Key points of Discussion



18Ys old Female Zygomatic fracture,Rt (Knight&North III)

When the whole orbitpzygomatic complex is malpositioned ,

- Bicocoral scalp flap

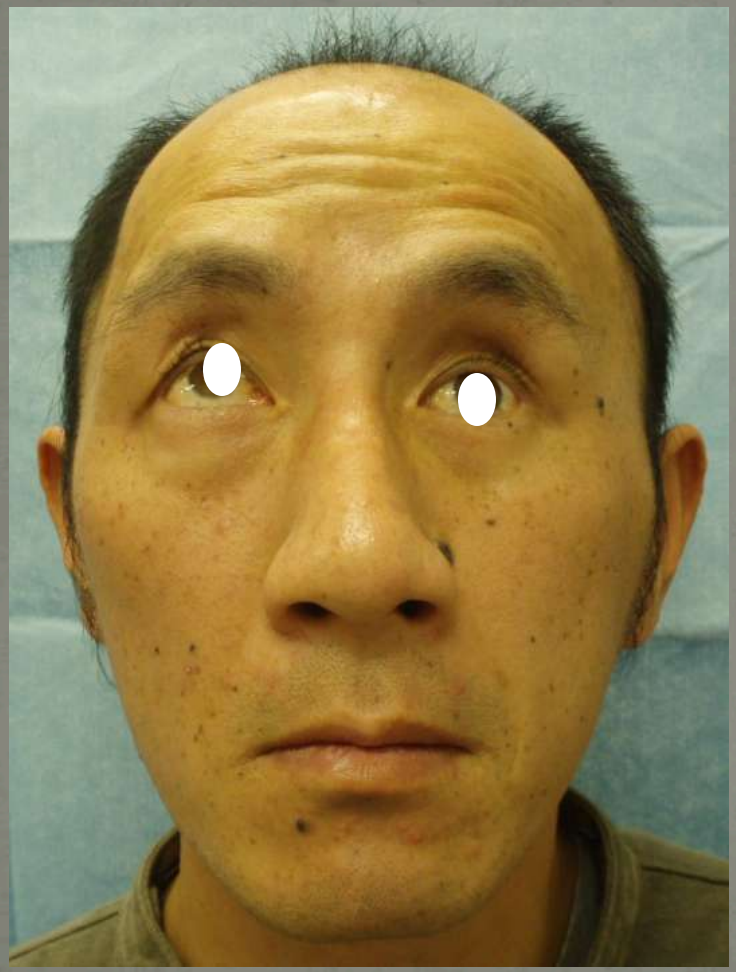
Wide exposure and to osteotomy to the frontozygomatic suture, and in the lateral orbital wall ,inferior orbital rim, lateral maxillary buttress and zygomatic arch

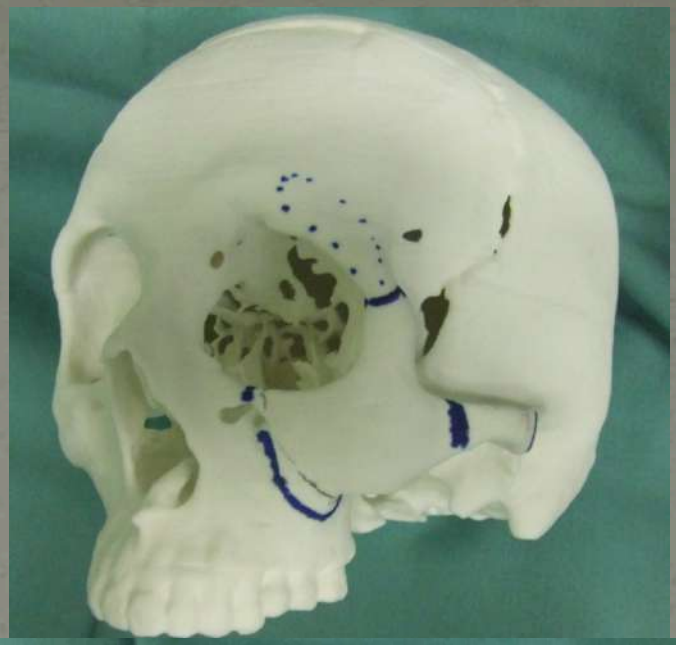
- Indications for treatments

Secondary alterations in facial contour(post-traumatic deformity)

Congenital craniofacial deformity(Syndromal craniosynostosis ;Crouzon D, Apert's Syn etc)

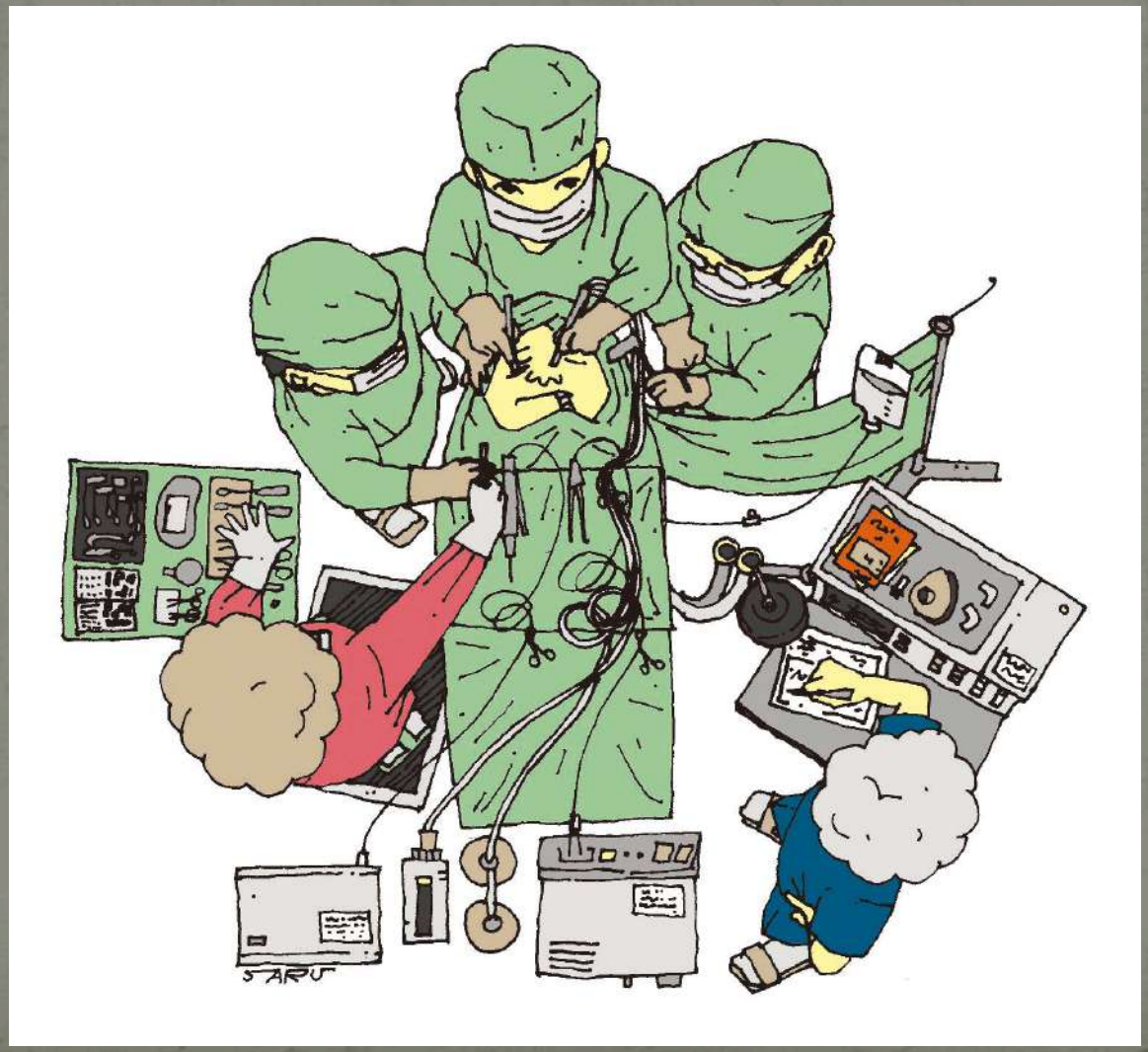
36Y M Posttraumatic Orbitozygomatic Deformity Lt





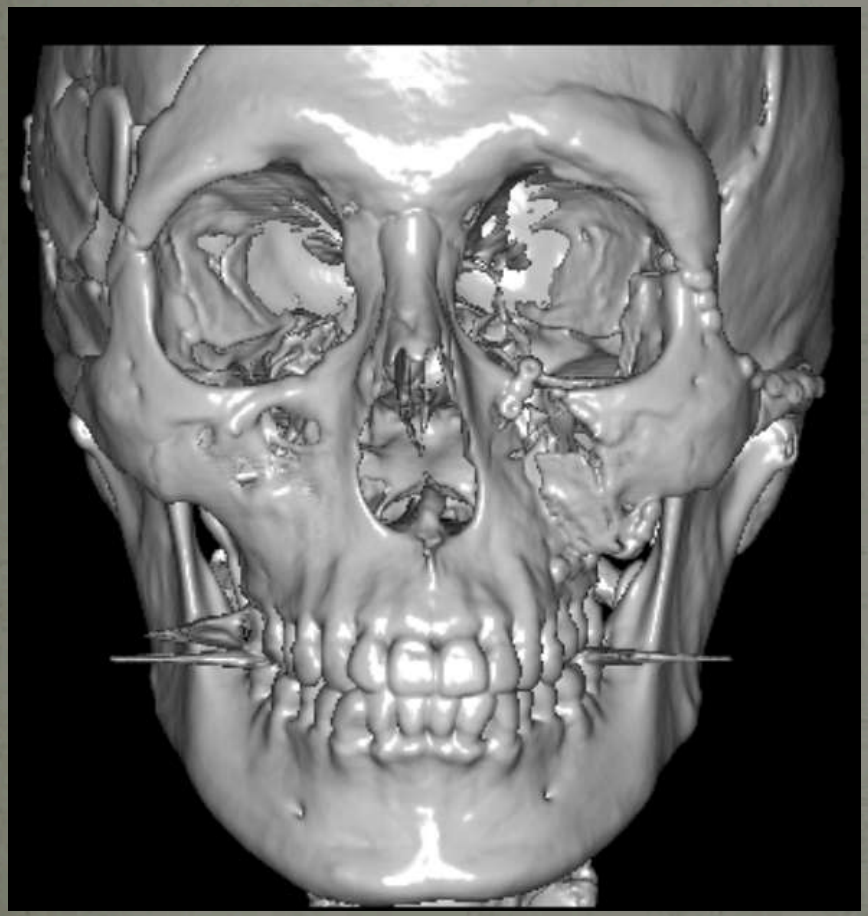
3D model simulation

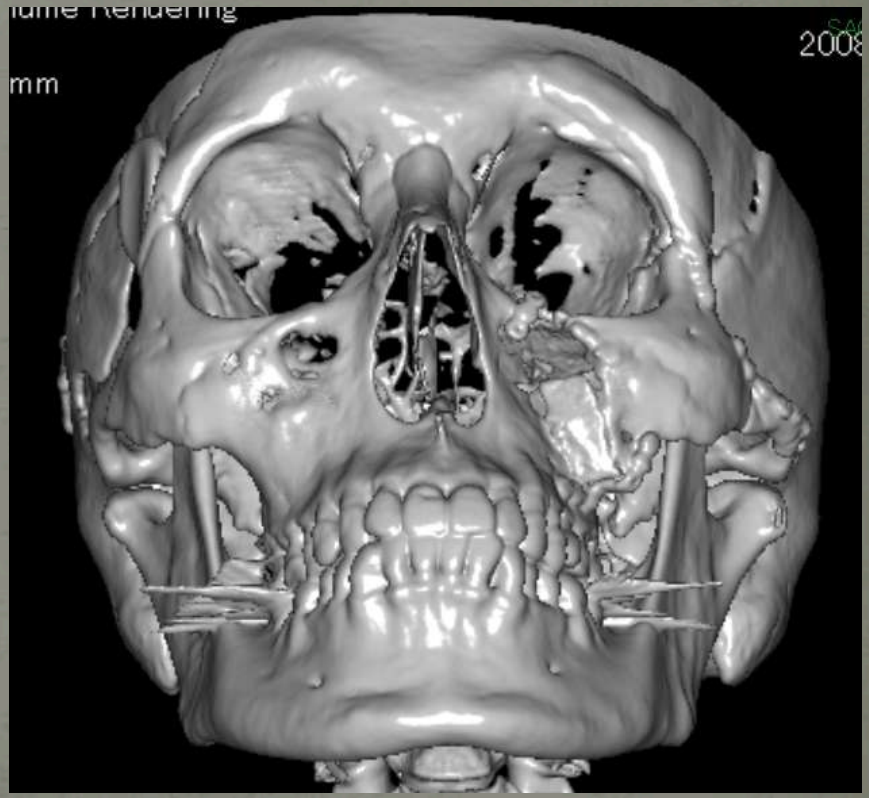
Set up in the theater



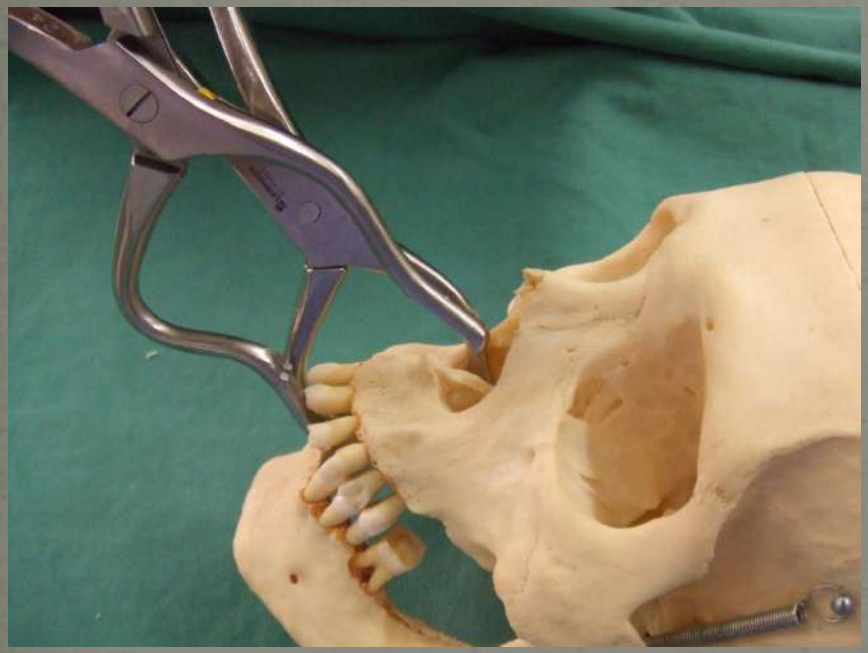
after surgery

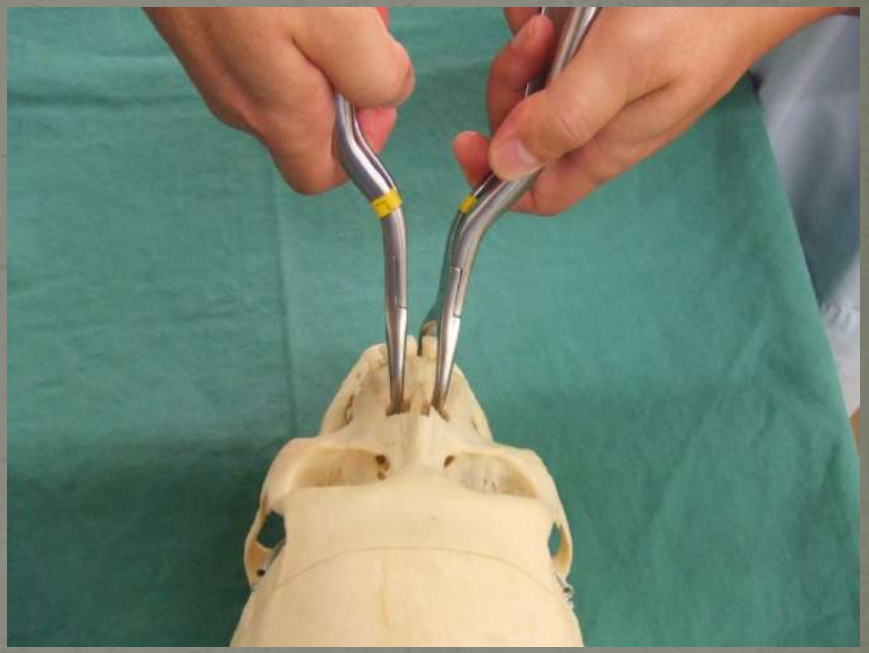
3DCT after surgery





How to use the instruments



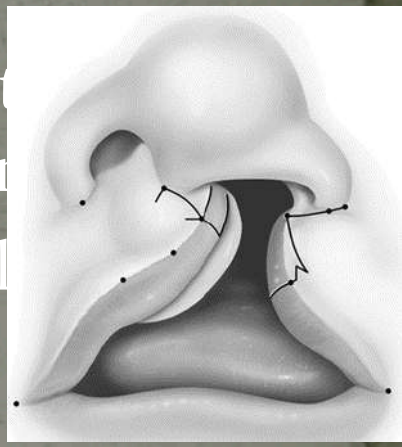


The theme today

- Facial Trauma (30ms)
  Craniofacial approach
- My Curriculum Vitae. in Plastic Surgery through 28 ys (2ms)
- Diabetic Foot: the Global Collaboration research in Saga university and Helsinki university (3ms)

RESIDENCIES in Japan and STUDY Oversea

- 1987-1989 Resident of Surgery, Japanese Red Cross Hospital, Tokyo Japan
- 1989-2000 Department of Plastic and Reconst Surgery, Showa University, Tokyo Japan(T.Or
- 1993-1994 Australian Craniofacial Unit, Adel Australia (D. J. David)



ACADEMIC APPOINTMENTS

- 2000-2001 Instructor in Division of Plastic and Reconstructive Surgery, Saga University Hospital
- 2001-2008 Assistant Professor of in Division of Plastic and Reconstructive Surgery, Saga University Hospital
- 2008- 2009 Associated Professor of Saga University (Plastic and Reconstructive Surgery)
- 2009 to now Head /Professor of Plastic and Reconstructive Surgery, Saga University Hospital
- 2015(April-October) Sabbatical in Helsinki

My Academic Work

- Craniofacial Surgery
- Reconstructive plastic surgery
- Lim Preserving Surgery

The theme today

- Facial Trauma (30ms)
  Craniofacial approach
- My Curriculum Vitae. in Plastic Surgery through 28 ys (2ms)
- **Diabetic Foot: the Global Collaboration research in Saga university and Helsinki university (3ms)**

Prevention and Management of Foot Problems in Diabetes Guidance Documents and Recommendations

Summary for Daily Practice

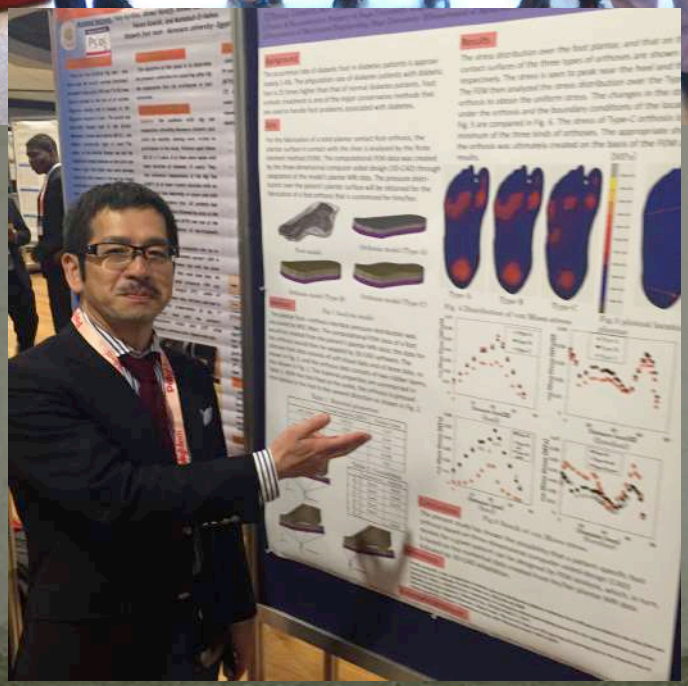
Guidance Documents

Definitions and Criteria

GUIDANCE
ON THE DIABETIC FOOT

The **2015** challenge of the International Working Group on the Diabetic Foot

An interactive program on the **International Consensus on the Diabetic Foot 2015**
Including **Summary for Daily Practice**
a **Series of Guidance Documents** and **Definitions and Criteria**



Vesa Juutilainen

13 Recommendations(IWGDF 2015)

1.To identify a person with diabetes at risk for foot ulceration, examine the feet annually to seek evidence for signs or symptoms of peripheral neuropathy and peripheral artery disease.

(GRADE recommendation: strong;Quality of evidence: low)

2. In a person with diabetes who has peripheral neuropathy, screen for: a history of foot ulceration or lower-extremity amputation; peripheral artery disease; foot deformity; pre-ulcerative signs on the foot; poor foot hygiene; and ill-fitting or inadequate footwear.

(Strong; Low)

3. Treat any pre-ulcerative sign on the foot of a patient with diabetes. This includes: removing callus; protecting blisters and draining when necessary; treating ingrown or thickened toe nails; treating haemorrhage when necessary; and prescribing antifungal treatment for fungal infections. (Strong; Low)

4. To protect their feet, instruct an at-risk patient with diabetes not to walk barefoot, in socks, or in thin-soled standard slippers, whether at home or when outside. (Strong; Low)

13 Recommendations(IWGDF 2015)

5. Instruct an at-risk patient with diabetes to: daily inspect their feet and the inside of their shoes; daily wash their feet (with careful drying particularly between the toes); avoid using chemical agents or plasters to remove callus or corns; use emollients to lubricate dry skin; and cut toe nails straight across. (Weak; Low)

6. Instruct an at-risk patient with diabetes to wear properly fitting footwear to prevent a first foot ulcer, either plantar or non-plantar, or a recurrent non-plantar foot ulcer. When a foot deformity or a pre-ulcerative sign is present, consider prescribing therapeutic shoes, custom-made insoles, or toe orthosis. (Strong; Low)

7. To prevent a recurrent plantar foot ulcer in an at-risk patient with diabetes, prescribe therapeutic footwear that has a demonstrated plantar pressure relieving effect during walking (i.e. 30% relief compared to plantar pressure in standard of care therapeutic footwear), and encourage the patient to wear this footwear.(Strong; Moderate)

8. To prevent a first foot ulcer in an at-risk patient with diabetes, provide education aimed at improving foot care knowledge and behaviour, as well as encouraging the patient to adhere to this foot care advice.(Weak; Low)

13 Recommendations(IWGDF 2015)

9. To prevent a recurrent foot ulcer in an at-risk patient with diabetes, provide integrated foot care, which includes professional foot treatment, adequate footwear and education. This should be repeated orre-evaluated once every one to three months as necessary. (Strong; Low)

10. Instruct a high-risk patient with diabetes to monitor foot skin temperature at home to prevent a first or recurrent plantar foot ulcer. This aims at identifying the early signs of inflammation, followed by action taken by the patient and care provider to resolve the cause of inflammation. (Weak; Moderate)

11. Consider digital flexor tenotomy to prevent a toe ulcer when conservative treatment fails in a high-risk patient with diabetes, hammertoes and either a pre-ulcerative sign or an ulcer on the toe. (Weak; Low)

12. Consider Achilles tendon lengthening, joint arthroplasty, single or pan metatarsal head resection, or osteotomy to prevent a recurrent foot ulcer when conservative treatment fails in a high-risk patient with diabetes and a plantar foot ulcer. (Weak; Low)

13. Do not use a nerve decompression procedure in an effort to prevent a foot ulcer in an at-risk patient with diabetes, in preference to accepted standards of good quality care. (Weak; Low)

Surgical treatment of diabetic neuropathy

- Decompression of the tibial nerve in the medial ankle tunnels

足根管症候群

- TTS（＝Tarsal Tunnel Syndromes）
  ⇒足根管の中を走る脛骨神経が何らかの原因で内圧があがり、圧迫されて引き起こされる症候群のこと。
  ガングリオン・癒合した距踵関節の骨隆起などにより足底のしびれ・痛みが生じる。

Rationale for 13

nerve decompression procedure

- **13. Do not use a nerve decompression procedure in an effort to prevent a foot ulcer in an at-risk patient with diabetes, in preference to accepted standards of good quality care.**

Global Collaboration Clinical reseach
The Effort of nerve decompression procedure
for Diabetic Foot

in Saga,Japan andHelsinki,Finland

Prevention of Ulceration,Amputation and Reduction of Hospitalization

Outcome of a Prospctive international Trial of a Tibial Nurve Decompression in Diabetic Foot Neuropathy

下肢救済マニュアル

The Textbook for Limb Preservation

—The Best Alternative for the Leg & Foot Disease

［編集］

上村 哲司（編集代表）

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安西 慶三

挽地 裕

古川 浩二郎

秀潤社

下肢救済マニュアル

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秀潤社

下肢救済マニュアル

The Textbook for Limb Preservation

—The Best Alternative for the Leg & Foot Disease

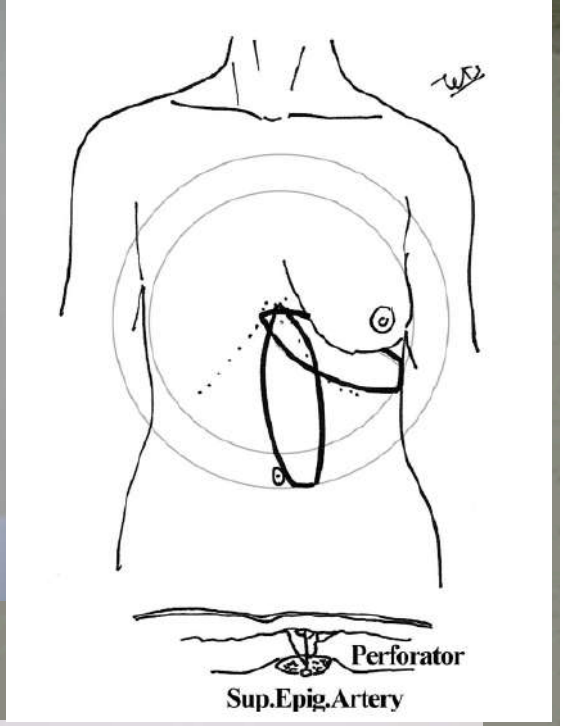
Ikebana ; Japanese flower arrangement

I t’s my hoby and work!!

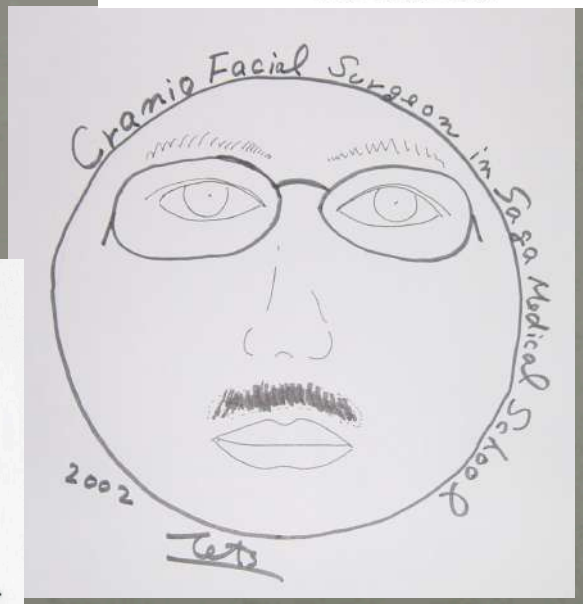




「挑戦」
上村哲司


Perforator
Sup.Epig.Artery


18th Aug 2010


Cranio Facial Surgeon in Saga Medical School
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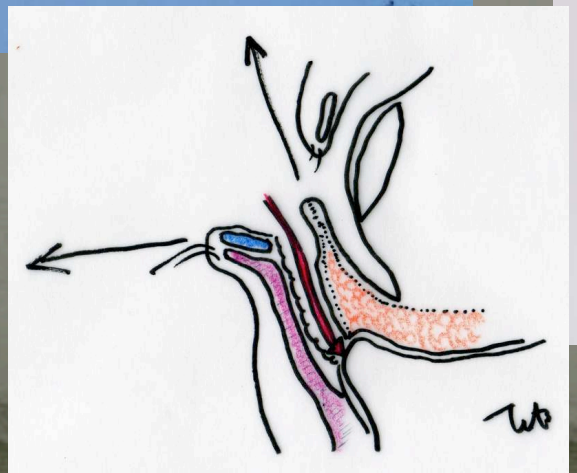
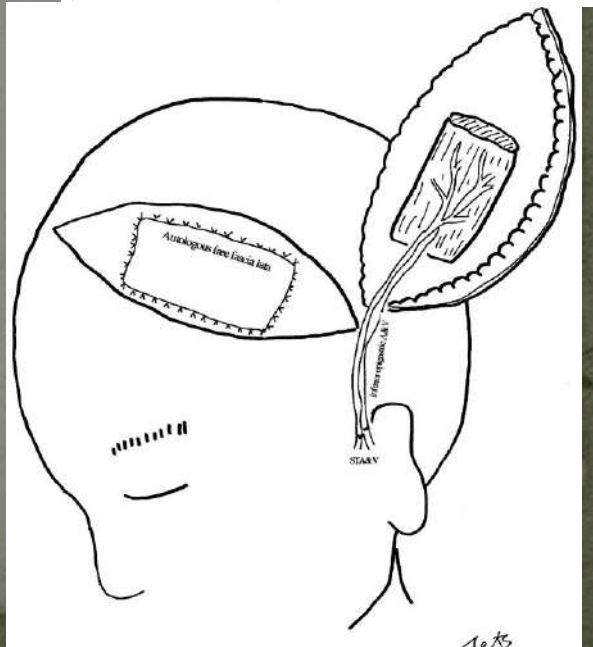
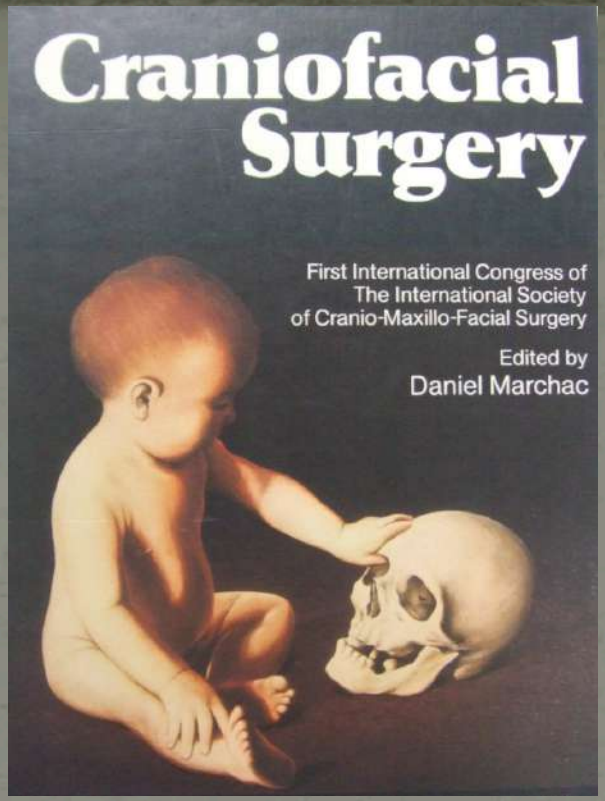
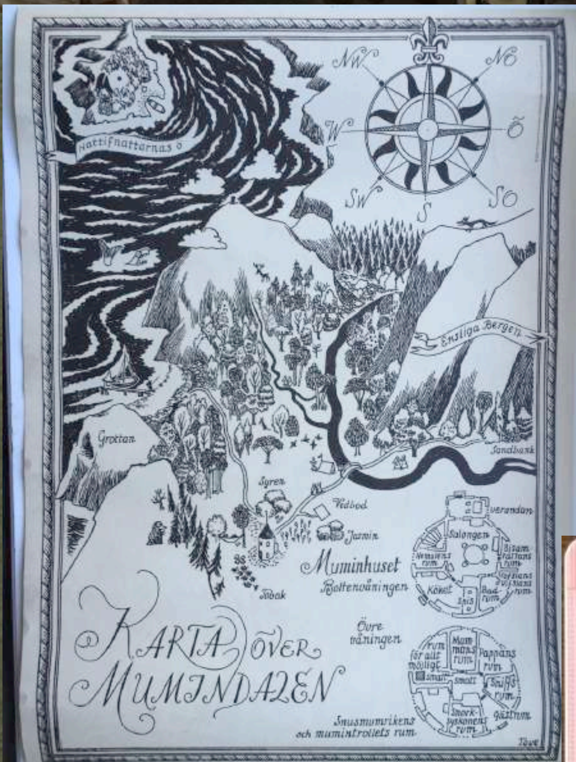



Autologous free fascia lata


Craniofacial
Surgery
First International Congress of
The International Society
of Cranio-Maxillo-Facial Surgery
Edited by
Daniel Marchac



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Ensliga Bergen
Grottan
Sandbank
Syren
Vedbod
verandan
Jasmin
Salongen
Muminhuset
Bottenvåningen
Övre våningen
Karta över Mumindalen
Snusmumrikens
och mumintrollets rum
Tove

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Kiitos paljon！！

（きーとす　ぱりよん）