



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



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جامعة عين شمس

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Management of Zygomatic-Maxillary- Orbital Fracture Using Transcutaneous Approaches Versus Retroseptal Transconjunctival Approach

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Dedication

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List of Abbreviations

AOCMF	Arbeitsgemeinschaft fur Osteosynthesefragen (German) / Cranio-Maxillofacial
ASA	American Society of Anesthesiology
BOV	Bony Orbital Volume
CBCT	Cone Beam Computed Tomography
CT	Computed Tomography
DICOM	Digital Imaging and Communications on Medicine
EFI	Eye Fissure Index
IM	Intra-Muscular
LIC	Lower Iris Coverage
MRI	Magnetic Resonance Imaging
MVSS	Modified Vancouver Scar Scale
NOE	Naso-Orbital-Ethmoid
OF	Orbital Fracture
ORIF	Open Reduction Internal Fixation
OSTV	Orbital Soft Tissue Volume
VA	Visual Acuity
VAS	Visual Analogue Scale
ZMO	Zygomatic-Maxillary-Orbital
ZO	Zygomatico-Orbital
3D	Three Dimensional

Orbital floor and mid facial fractures are a common result of periorbital trauma⁽¹⁾. Traumatic incidents are increasing throughout the world, therefore maxillofacial surgeons must be updated with different ways and approaches to treat the facial fractures.

There are two major approaches to the orbit, which are transcutaneous and transmucosal, under each there are variations. For the former there are three variations, starting closest to the lower eyelid or the cilia line and moving further down towards the cheek. The first is the subciliary approach which has two sub variations, skin flap (non-stepped) and skin muscle flap (stepped). The second is the subtarsal approach, when John Converse published the method in 1944, it soon became widely recognized and clinically applied in orbital surgery⁽²⁾. The third and least used if used at all is the infraorbital approach.

As for the transmucosal approaches there are mainly two variations, preseptal transconjunctival approach which is more demanding and requires meticulous manipulation and surgical skills. The second variation is retroseptal transconjunctival approach, which is easier and slightly faster⁽³⁾.

This approach was first described by Bourquet⁽⁴⁾ for lower eyelid fat removal. Tessier⁽⁵⁾ later popularized this approach in 1973 for exposure of the orbital floor and maxilla for treatment of facial and orbital fractures.

Willson et al.⁽⁶⁾ compared between the two approaches, he mentioned that neither the transconjunctival nor the transcutaneous approaches are immune from complications. But he stated that, oral and maxillofacial surgeons are more likely to be able to manage complications from the subtarsal approach, which include ectropion, scleral-show, and/or hypertrophic scar formation better than they might manage complications from the transconjunctival approach, such as entropion, ectropion, sclera-show, lid