

Transconjunctival Lower Lid Approach for Orbital Fractures with Lateral Peri-canthal Incision

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Disclosure

- No financial disclosures.

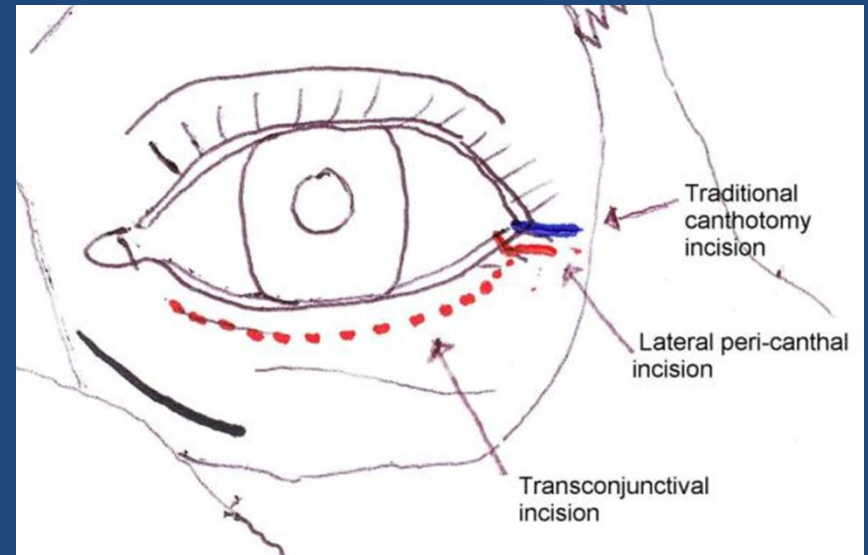
Objective of the study

- The transconjunctival approach with lateral canthotomy is popular approach in orbital fractures because of minimal external scar.
- if the lateral canthotomy area is improperly repaired, it may cause lower lid malposition and deformity.

- The authors report the use of a modified transconjunctival incision method to overcome possibility of improper repair in cantholysis.

Material and Method

- Between January 2011 and December 2012, this technique was used in 30 patients with orbital fractures.
- We performed lateral cantholysis by lateral peri-canthal incision



Operation method

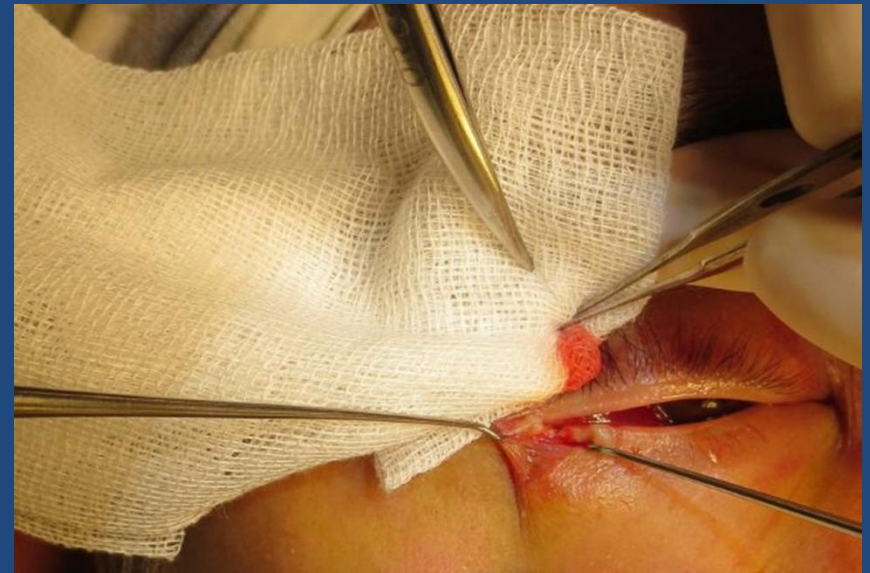
- *The incision is designed a line is drawn perpendicularly to the gray line, past the eyelashes approximately 3 mm away from gray line*
- *The design is extended obliquely in the inferolateral direction, along minor skin crease, for 5 - 8 mm.*

Supported by the handle of empty scalpel holder



- *The incision is made through the skin and full thickness of the eyelid, including the tarsal plate.*

The additional transconjunctival incision is extended medially towards the punctum along the inferior margin of the tarsal plate



- *The lower lid can readily be distracted, or "swung", away from the globe without the need for excessive tension.*

The inferior orbital rim and floor are accessed by dissecting through the usual submuscular plane



- *With satisfactory repair of orbital fracture(s), the incision is closed by the meticulous apposition of the divided structures.*



- *Most notably, the tarsal plate and gray line are used as focal loci of approximation to restore the anatomy of the lower eyelid.*



- *The tarsal plate is repaired with an inverted 6-0 vicryl suture with the knot buried. The conjunctiva is closed with 7-0 vicryl, and skin with 6-0 silk*



Result

- One re-operation was required in a case of preseptal hematoma.
- One patient presented with notch deformity but did not feel the need for a revisional operation.
- 29 patients were satisfied with the aesthetic and functional outcome

Case

Blow out fracture of right orbit floor in 46 yr old man

Preoperative Photo (Initial visit)



Postoperative Photo (1yr follow-up)



Conclusions

- In the modified transconjunctival incision with lateral peri-canthal incision, provides excellent exposure of the orbital floor.
- The aesthetic and functional outcomes of the eyelid aperture were excellent

Significance of the findings

- The decoupling of lower eyelid through the lateral portion of tarsal plate provides a reliable and consistent landmark by which the anatomy of eyelid could again be restored in the transconjunctival approach for orbital fractures