

Modification of the Hemicoronal Approach to Treat Fractures of the Zygomatic Complex

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Received: 5 August 2009 / Accepted: 3 July 2010 / Published online: 30 October 2010
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Approximately 45% of trauma to midface constitutes the zygomatic complex fractures [2] and their management is definitely a challenging venture for maxillofacial surgeons. Various approaches and surgical incisions have been described to treat fractures of the zygomatic complex wherein the stability of these fractures is a major concern. There have always been controversies to the use of the most simple and efficient approach to treat these fractures.

Traditional closed techniques and total exposure of all fracture lines by conventional multiple incisions [3] have been routinely used. All these approaches or a single routine hemicoronal incision are always in a constant state of contention [1]. The ideal and the best surgical approach to treat these fractures should provide maximum necessary exposure of the fractures segments, minimise potential for injury to facial structures and enable good cosmetic results.

The concurrent existence of the inferiorly displaced zygomatic arch with these fractures invokes functional and aesthetic correction. This situation (Fig. 1) is more challenging and adequate planning needs to be exercised to achieve superior results. Also the presence of inadequate mouth opening due to the hindrance of the arch to the coronoid process of the mandible is one of the absolute

indications for surgical management of such combination of fractures. A single incision which could provide excellent access to such a combination as well as comminuted and malunited varieties of such fractures is the need of the hour.

We have devised a modified hemicoronal incision (Figs. 2, 3) wherein the anterior arm of the incision curves downwards towards the superior wall of the orbit well before it reaches the vertex of the skull within the hairline, thereby forming a “backcut” providing excellent exposure of the entire zygomatic complex and the arch being its major advantage with minimal functional morbidity (temporary facial nerve neuropraxia) which is again temporary.

The depth of dissection of this incision remains the same as the conventional hemicoronal approach i.e. upto the superficial temporal fascia. No structures in this region pose a threat and the results were acceptable with all our patients [4]. The “modification” only lies in the incision which provides additional direct access.

This single modified hemicoronal incision gives an excellent access to the fractures, is aesthetic, and is less invasive thereby being quite acceptable for the patients.

Conflicts of interest statement None.

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Fig. 1 CT scan

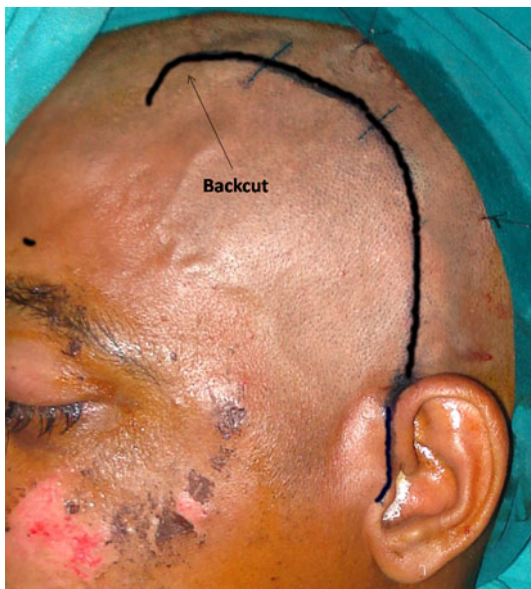
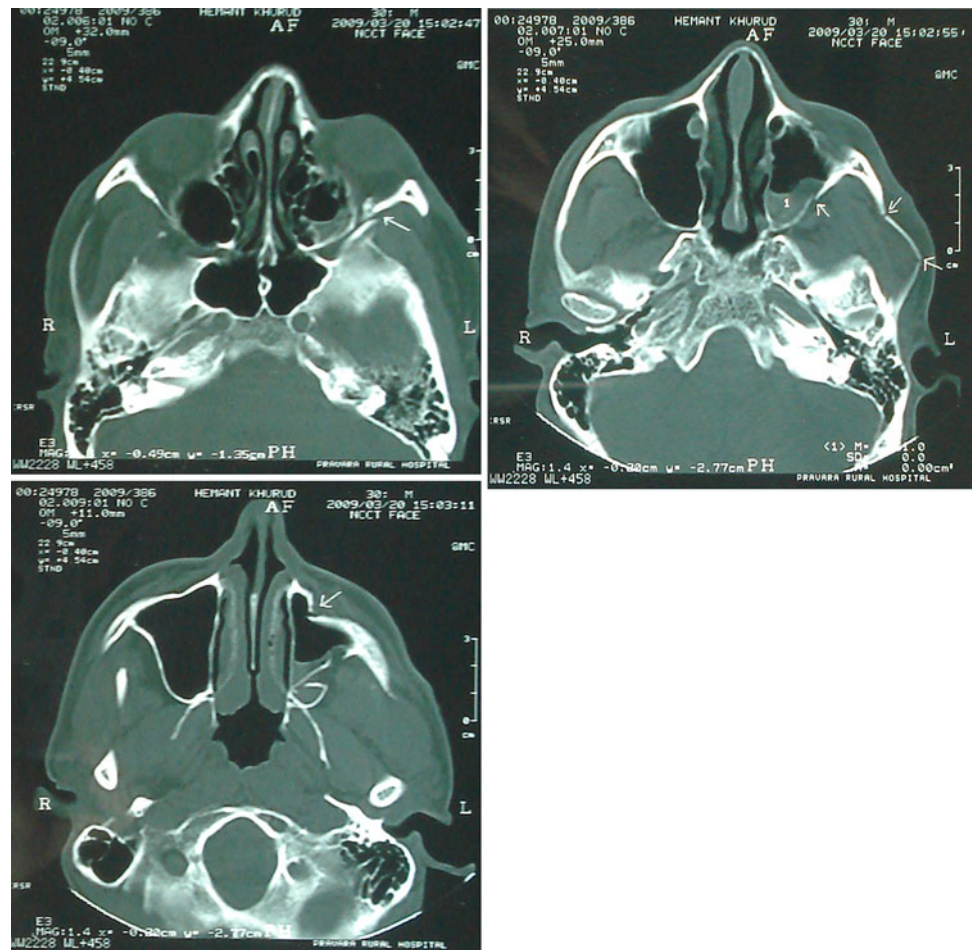


Fig. 2 Incision design

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Fig. 3 Exposure and post-operative

