

# 两种联合切口手术治疗眶 - 上颌 - 颧骨复合体骨折的对比研究 \*

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**摘要 目的:** 对比研究冠状 - 睑下缘 - 口内联合切口手术与冠状切口联合口腔前庭沟切口手术治疗眶 - 上颌 - 颧骨复合体骨折的治疗效果。**方法** 选取 2006 年 10 月~2010 年 12 月眶 - 上颌 - 颧骨复合体骨折患者 136 例, 69 例患者行冠状 - 睑下缘 - 口内联合切口手术, 67 例行冠状切口联合口腔前庭沟切口手术, 分别命名为 A 组和 B 组, 比较两组患者治疗效果, 治疗效果用甲级、乙级和丙级表示。**结果** :A 组治疗效果甲级、乙级、丙级分别为 65.2%、30.4%、4.4%, B 组治疗效果甲级、乙级、丙级分别为 46.3%、29.8%、23.9%, A 组治疗效果优于 B 组; A 组术后并发症少于 B 组。**结论** 冠状 - 睑下缘 - 口内联合切口手术比冠状切口联合口腔前庭沟切口手术更好地治疗眶 - 上颌 - 颧骨复合体骨折, 治疗效果好, 并发症少, 能更好地实现颧骨复位。

**关键词** 联合切口 眶 - 上颌 - 颧骨骨折 坚强内固定

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## Comparative Study on Two United Incisions Treating on Orbital-Maxillary-Zygomatic Complex Fractures by Operation\*

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**ABSTRACT Objective:** To investigate comparatively treatment effectiveness between coronal-subciliary-intraoral united incision operation and coronal incision combined with oral cavity vestibular groove united incision operation treating on orbital-maxillary-zygomatic complex fractures. **Methods:** 136 orbital-maxillary- zygomatic complex fracture patients were selected from October, 2006 to December, 2010. 69 patients were treated by coronal-subciliary-intraoral united incision operation, and 67 patients were treated by coronal incision combined with oral cavity vestibular groove united incision operation. The two groups were called group A and group B. The treatment effectiveness was used in contrasting between group A and group B, and first rate, second rate, third rate were indicated for treatment effectiveness. **Results:** The first rate, second rate, third rate of group A's treatment effectiveness were 65.2%, 30.4%, 4.4%, and The first rate, second rate, third rate of group B's treatment effectiveness were 46.3%, 29.8%, 23.9%. The treatment effectiveness of group A was better than group B's. The postoperative complications of group A were less than group B's. **Conclusion:** Treating on orbital-maxillary- zygomatic complex fractures, coronal-subciliary- intraoral united incision operation is better than coronal incision combined with oral cavity vestibular groove united incision operation. It has better treatment effectiveness, less postoperative complications and better zygomatic bone reset.

**Key Words:** United incision; Orbital-maxillary-zygomatic (OMZ) complex fracture; Rigid internal fixation

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颧骨、颧弓是颌面部最为突出的骨骼, 易受外力的作用而发生骨折。随着交通事故的日益增多, 颌面部骨折越来越多, 常合并眶 - 上颌 - 颧骨(orbital maxillary zygoma, OMZ)复合体骨折<sup>[1-3]</sup>。OMZ 复合体骨折可造成面部畸形以及张口受限、咬合紊乱、复视等功能障碍, 治疗复杂, 术后形态和功能恢复常不理想。冠状切口联合口腔前庭沟切口手术是治疗 OMZ 复合体骨折常用的术式<sup>[4-6]</sup>, 然而, 此术式难以实现颧骨的三维复位和术后颧部外形的恢复。冠状 - 睑下缘 - 口内联合切口手术较好地弥补了上述缺陷, 本研究对比冠状 - 睑下缘 - 口内联合切口手术与冠状切口联合口腔前庭沟切口手术治疗眶 - 上颌 - 颧骨复合体骨折的治疗效果, 旨在评价、寻找眶 - 上颌 - 颧骨复合体骨

折较为理想的治疗方法。

### 1 资料和方法

#### 1.1 临床资料

选取 2006 年 10 月~2010 年 12 月入住我科眶 - 上颌 - 颧骨复合体骨折患者 136 例, 69 例患者行冠状 - 睑下缘 - 口内联合切口手术, 67 例行冠状切口联合口腔前庭沟切口手术, 分别命名 A 组和 B 组。A 组中男 45 例, 女 24 例, 年龄 8~55 岁, 平均年龄 31.5 岁; B 组中男 44 例, 女 23 例, 年龄 10~54 岁, 平均年龄 32.7 岁。两组患者在年龄、性别、骨折程度、损伤时间等方面, 无统计学差异( $P>0.05$ )。纳入标准: ①临床诊断和影像

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学诊断符合眶—上颌—颧骨复合体骨折；②无局部皮肤感染，无其他感染性疾病；③无严重心、肺、肝脏、肾脏等重要器官功能障碍；④年龄≤70岁；⑤自愿接受手术，并签署患者知情同意书及手术同意书。排除标准：①不符合眶—上颌—颧骨复合体骨折诊断标准；②有局部皮肤感染或有其他感染性疾病；③存在严重心、肺、肝脏、肾脏等重要器官功能障碍；④年龄>70岁；⑤非自愿接受手术。

1.2 固定器械

采用宁波慈北医疗器械有限公司提供的口腔颌面外科专用坚固内固定钛板系列，厚度为0.6cm、0.8cm的微型钛板和直径1.5mm的自攻自钻钛钉等。

1.3 手术方式

A组术前三维重建CT图像，选择冠状切口或半冠状切口+睑下缘切口+上颌前庭沟切口，并加以改良，行眶、颧、上颌骨骨折复位固定术，以解决咬合关系紊乱、开口受限、复视等为手术原则<sup>[7-8]</sup>。B组术前三维重建CT图像，选择冠状切口+口腔前庭沟切口，眶—上颌—颧骨复合体骨折复位固定术，以解决咬合关系紊乱、开口受限等为手术原则<sup>[9-10]</sup>。

1.4 治疗效果判定标准

疗效评判标准<sup>[11]</sup>：甲级：双侧颜面对称一致，无复视及眼球内陷，骨折愈合良好，内固定稳定可靠，外形恢复满意，咬合

关系和张口度均恢复正常；三维CT示眶—上颌—颧骨复合体骨折解剖复位，无并发症；乙级：双侧颜面部外形基本对称，无复视及眼球内陷，张口度3.0~4.0cm，骨折基本愈合，内固定稳定尚可，外形恢复较满意，咬合关系和张口度基本恢复正常，三维CT示眶—上颌—颧骨复合体骨折基本复位，无并发症；丙级：双侧颜面对称欠佳，有复视或眼球内陷，张口受限，骨折愈合差，内固定稳定性欠佳，外形恢复不满意，咬合关系和张口度未恢复正常，三维CT示眶—上颌—颧骨复合体骨折未复位，有并发症。

1.5 统计学分析

计数资料以例数(百分比)表示，应用SPSS15.0软件进行分析，计数资料采用 $\chi^2$ 检验，取 $\alpha=0.05$ ， $P<0.05$ 认为有统计学差异。

2 结果

2.1 治疗效果

A组治疗效果甲级、乙级、丙级分别为65.2%、30.4%、4.4%；B组治疗效果甲级、乙级、丙级分别为46.3%、29.8%、23.9%（表1、图1）。A组甲级治疗效果与B组相比差异明显（ $P<0.05$ ）；A组乙级治疗效果与B组相比差异不明显（ $P>0.05$ ）；A组丙级治疗效果与B组相比差异明显（ $P<0.05$ ）。

表1 两组患者的治疗效果

Table 1 The treatment effectiveness of the two groups

Groups\ Items	Number of patients (N)	First rate n(%)	Second rate n(%)	Third rate n(%)
Group A	69	45(65.2%)*	21(30.4%)	3(4.4%)*
Group B	67	31(46.3%)	20(29.8%)	16(23.9%)

Note : \* $P<0.05$  Group A compared with Group B in the First rate treatment effectiveness; # $P<0.05$  Group A compared with Group B in the Third rate treatment effectiveness.

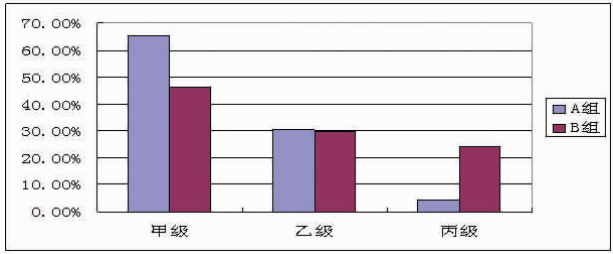


图1 两组患者的治疗效果

Figure 1 The treatment effectiveness of the two groups

2.2 并发症

A组2例患者术后发生轻度睑外翻，两周后复诊，恢复正常，未出现额纹变浅、面神经损伤等其他并发症。B组5例患者术后出现不同程度患侧额纹变浅，两周后复诊，恢复正常；3例患者术后发生轻度睑外翻，两周后复诊，恢复正常；6例患者出现颧部轻度塌陷，未完全复位。

3 讨论

OMZ复合体骨折是口腔颌面外科的常见病，是颌面部创

伤治疗中的重点<sup>[12-14]</sup>。只有手术恢复眼眶及颧骨外形突点、颧弓外形，才能恢复面部外形，如果复位不当，可发生眼球内陷、复视等一系列并发症，很难二次手术矫正。为了治疗OMZ复合体骨折，预防并发症，口腔颌面外科专家们进行了长久的探索。Obwegeser<sup>[15]</sup>在1985年首先提出将冠状切口用于颅面畸形的治疗，之后被广泛用于处理眶—上颌—颧骨复合体骨折<sup>[16]</sup>。然而，由于冠状切口存在不能满意暴露损伤部位，易损伤面神经及眶上神经血管束和损伤眶内容物等不足之处，使之应用受到了限制，联合其他手术切口成了必然的选择。冠状切口联合口腔前庭沟切口入路治疗OMZ复合体骨折是口腔颌面外科专家提出的新的手术方式，它可以较好地弥补冠状切口的不足<sup>[17]</sup>，但是，仍有一个突出问题没有解决——颧骨的三维复位和术后颧部外形的恢复，本研究中B组患者中6例出现颧部轻度塌陷，未完全复位。睑下缘切口手术是治疗颧骨复合体骨折的常规和重要手术，在颧骨的三维复位和术后颧部外形恢复上具有明显优势。

针对OMZ复合体解剖结构和复合体骨折的特点，结合冠状切口联合口腔前庭沟切口手术和睑下缘切口手术的优势，运用冠状—睑下缘—口内联合切口手术治疗眶—上颌—颧骨复合

体骨折优势明显,具有充分暴露手术野,切口隐蔽,对邻近部位的骨折可一次性复位,骨折表面骨膜及软组织覆盖好,抗感染能力强,愈合佳等优点。本研究结果显示,A组治疗效果甲级、乙级、丙级分别为65.2%、30.4%、4.4%,B组治疗效果甲级、乙级、丙级分别为46.3%、29.8%、23.9%,A组治疗效果优于B组;A组2例患者术后发生轻度睑外翻,未出现额纹变浅、面神经损伤等其他并发症。B组5例患者术后出现不同程度患侧额纹变浅,3例患者术后发生轻度睑外翻,6例患者出现颧部轻度塌陷,A组术后并发症少于B组。李建成等<sup>[18]</sup>对24例OMZ复合体骨折患者通过头皮冠状切口、眶周小切口并联合口内上颌前庭沟切口进路,行骨折复位后,24例面部外形均明显改善,张口度恢复正常,8例有眼功能障碍者均恢复。随着临床应用的不断深入,冠状-睑下缘-口内联合切口手术逐渐成为了治疗OMZ复合体骨折的主流手术<sup>[19,20]</sup>。

综上,冠状-睑下缘-口内联合切口手术比冠状切口联合口腔前庭沟切口手术更好地治疗眶-上颌-颧骨复合体骨折,治疗效果好,并发症少,能更好地实现颧骨复位。

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