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· 临床研究 ·

## 经耳屏小切口入路手术治疗髁状突矢状骨折

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**【摘要】** **目的** 探讨下颌骨髁状突矢状骨折手术经耳屏小切口入路的方法及疗效。**方法** 15例19侧下颌骨髁状突矢状骨折患者,采用经耳屏约4 cm长隐蔽小切口入路,解剖颞浅动静脉并向前拨开,切开颞深筋膜浅层并沿筋膜深面解剖暴露颞弓及颞下颌关节关节囊,切开关节囊,在直视下进行下颌骨髁状突骨折坚固内固定术,术后通过临床及影像学检查随访6个月。**结果** 全部患者术后1周拆线,其中2例出现轻度面瘫,分别为患侧颞支Ⅱ级面瘫及患侧颞支Ⅲ级面瘫、颞支Ⅱ级面瘫,给予营养神经治疗后,3个月内恢复正常。所有患者没有出现术后涎痿感染及其他严重并发症,咬合关系恢复良好,术后复查CT提示骨折断端复位良好,髁状突形态良好。术后3个月咬合关系正常,张口度大于30 mm,关节无弹响,开口型无偏斜,术后6个月复查,疤痕不明显。**结论** 经耳屏小切口入路手术创伤小,解剖层次清晰,避免损伤面神经,可为髁状突矢状骨折手术提供较好的手术视野,安全便捷。

**【关键词】** 髁状突矢状骨折; 耳屏小切口; 手术入路; 颞中静脉; 解剖结构

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**Small incision through the tragus for the treatment of sagittal condylar fracture** LIU Yanjie, LI Gang, WANG Junlin, SONG Yong, CHEN Yucong, QIN Yuanhua. The Department of Stomatology of Liuzhou General Hospital, Liuzhou 545006, China

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**【Abstract】** **Objective** The purpose of this study was to a new operative approach for sagittal condylar fractures via a preauricular small incision-based technique and to examine the effectiveness of this approach. **Methods** Fifteen patients (19 sides) with sagittal condylar fractures were included in the study. The incision length was approximately 4 cm through the tragus, exposing the superficial temporal vessels, which was then pulled forward. Next, the deep temporal superficial fascia was cut, and the surface of the zygomatic arch and the articular capsule of the temporomandibular joint were exposed. Joint capsule incision was performed, with mandibular condylar fracture fixation under direct vision. We followed up with the patients postoperatively for 6 months with clinical and radiographic examinations. **Results** All patients had 1 week postoperation before being discharged, during which 2 cases of mild facial paralysis (with lateral temporal level II facial paralysis, with lateral temporal branch level III facial paralysis and level II zygomatic branch of facial nerve paralysis after treatment) were observed, after given nerve nutrition agents, 2 cases returned to normal within 3 months. No patient exhibited a postoperative delayed fistula infection or other serious complications. Intraoperative occlusion relationships recovered well, and postoperative CTs suggested that the fracture ends and condyles were in good condition. The occlusion relationship was normal for 3 months after surgery, with a degree of opening greater than 30 mm, no play in the joints and no oblique openings being observed, and reexamination 6 months after the surgery revealed no obvious scars. **Conclusion** This surgical method involves a small incision and clear anatomic structures and

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avoids damage to the facial nerve. This method provides better surgical vision for treatment of sagittal condylar fractures, is safe and convenient, and deserves clinical recommendation.

**【Key words】** Sagittal condylar fracture; Small incision through the tragus; Operative approach; Venae temporales media; Anatomic structure

髁状突骨折是下颌骨骨折的常见类型,约占下颌骨骨折的1/3<sup>[1]</sup>,常引起患者面部畸形、功能紊乱,严重影响患者工作生活。髁状突解剖毗邻关系复杂、体积较小、位置深,复位和固定难度较高,容易发生颞下颌关节强直等并发症<sup>[2]</sup>。传统手术入路有多种,如耳屏前入路、耳后入路、口内入路等。笔者对传统耳屏前入路进行改进,效果良好,现报道如下。

## 1 资料和方法

### 1.1 病例资料

2016年4月—2017年8月在柳州市人民医院治疗的髁状突矢状囊内骨折患者15例共19侧,其中男性8例,女性7例,年龄17~67岁,平均年龄(38.2±15.8)岁,6例伴下颌骨其他部位骨折,均伴有不同程度张口受限及咬合关系紊乱,多层螺旋CT诊断髁状突骨折。

### 1.2 手术方法

手术在经鼻腔气管插管全麻下进行,伴下颌骨其他部位骨折的先行髁状突骨折复位固定术。自耳屏上方沿耳屏最高点至耳垂做切口,切口长约4 cm,切开皮肤,皮下组织,暴露耳屏软骨,沿耳屏软骨表面分离暴露颞浅动静脉。解剖颞浅动静脉并将颞浅动静脉向前方拉开暴露颞深筋膜浅层,切开颞深筋膜浅层并沿筋膜深面寻找颞中静脉。沿颞深筋膜浅层深面脂肪组织表面翻瓣,并向前拉开,即可暴露颞弓,将颞弓表面的骨膜剥离向前翻瓣拉开即可暴露颞下颌关节关节囊,在关节囊表面做水平切口即可直视下完整暴露髁状突。直视下解剖复位髁状突断端,用直径2 mm的钻头从髁状突颈部钻入,贯穿髁状突两侧断端,使用直径2 mm长螺钉两枚进行坚强复位内固定。并将移位的关节盘复位,分层缝合关节囊,颞浅筋膜,皮下组织及皮肤(图1)。

### 1.3 术后随访

对所有患者治疗后拍摄颌面骨CT了解手术复位情况。术后每月复诊,追踪6个月,观察伤口愈合情况、咬合关系、面瘫情况、张口度张口型及关

节弹响。其中,患者面瘫以House-Brackman分级法<sup>[3]</sup>进行测量。

## 2 结果

全部患者术后1周予以拆线,并追踪6个月。其中2例出现轻度面瘫,分别为患侧颞支Ⅱ级面瘫及患侧颞支Ⅲ级面瘫、颞支Ⅱ级面瘫,给予营养神经治疗后,3个月内恢复正常。没有出现术后涎痿感染及其他严重并发症,咬合关系恢复良好,术后复查CT提示骨折断端复位良好,髁状突形态良好。术后3个月咬合关系正常,张口度大于30 mm,关节无弹响,开口型无偏斜,术后6个月复查,疤痕不明显,患者对治疗效果满意(图2)。

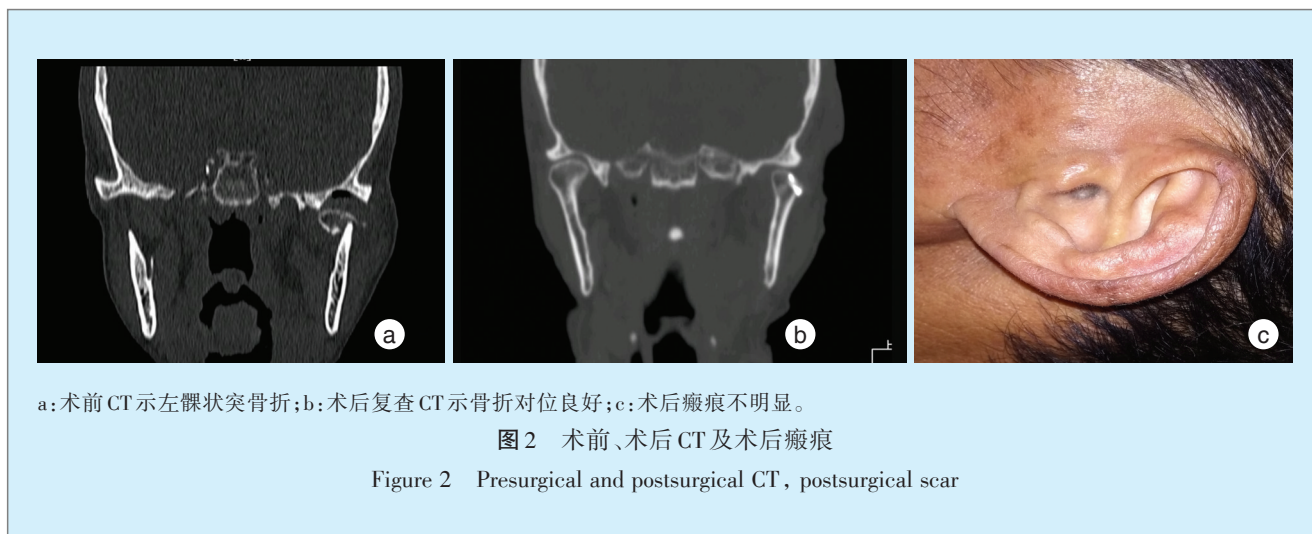
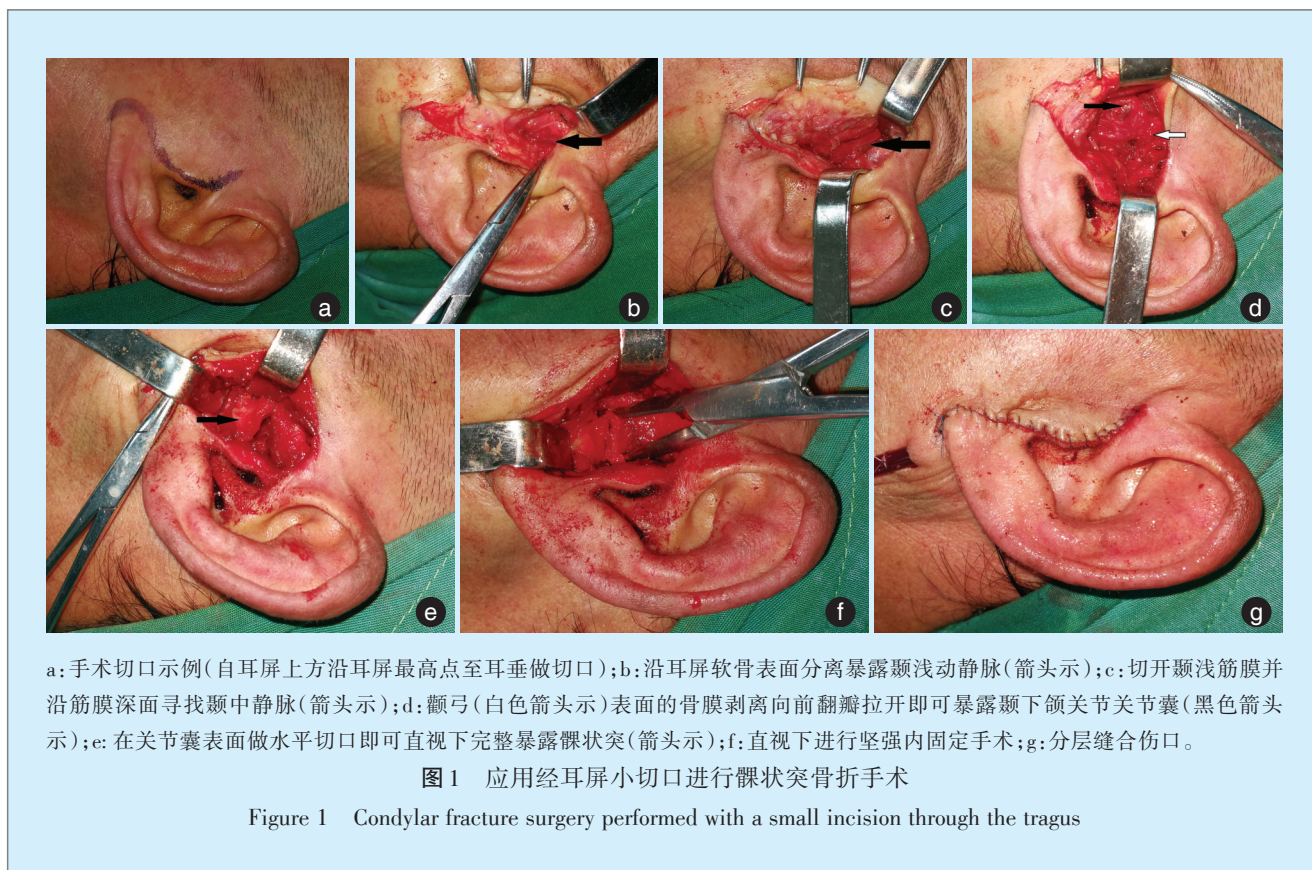
## 3 讨论

### 3.1 髁状突囊内骨折的分型及治疗方法

髁状突骨折是颌面部骨折的好发部位,约占下颌骨骨折的1/3左右,对髁状突骨折采取手术治疗或者保守治疗,目前学术上还存在争议<sup>[4]</sup>。髁状突囊内骨折分为A、B、C、M四型<sup>[5]</sup>。①A型骨折:骨折线经过髁状突头的内1/3,下颌支高度无变化;②B型骨折:骨折线经过髁状突头的中1/3,下颌支高度降低;③C型骨折:骨折线经过髁状突头的外1/3,下颌支高度降低;④M型骨折:髁状突头粉碎性骨折。本研究所选择病例为B型及C型骨折,升支高度降低,若选择保守治疗并未恢复患者髁状突解剖结构和下颌升支的长度,后期易引起关节强直、广泛髁状突变形、下颌运动减弱、张口侧偏、咬合干扰等<sup>[6]</sup>。选择手术治疗的可以解剖复位髁状突,恢复颞下颌关节形态和功能,更快更准确地恢复髁状突的运动功能以及正常的咬合关系<sup>[7]</sup>,同时可以引导面部其他合并骨折的复位<sup>[8]</sup>。

### 3.2 髁状突囊内骨折的手术入路

传统髁状突囊内骨折手术入路主要有:①颌下入路,这个切口既能进行髁状突低位骨折的治疗也能通过扩大切口进行髁状突高位骨折的治疗,简单实用,易于掌握<sup>[9]</sup>,但存在易损伤面神经下颌缘支、瘢痕明显等缺点;②下颌后入路,这种手



术切口不能充分暴露髁状突颈部骨折或髁状突高位骨折区域,只能完成髁状突基底部骨折及低位髁状突颈部骨折的治疗,需分离保护面神经颞支及颊支,术后引起面瘫风险较大<sup>[10]</sup>。③耳前入路,此法可探查关节盘的移位情况以及下颌支残端与关节窝的关系。切口损伤小,瘢痕不明显,但易损伤面神经和局部血管。④耳后入路,适用于髁状突高位骨折患者。与耳前入路比较,这种术式既

能为常见的髁状突高位骨折提供良好的视野,又能在术中很好的保护关节囊及其附属组织,还能取得几乎看不到瘢痕的美观效果,但是该术式存在一个致命缺陷就是术中在外耳道做横向切口,因此,术后存在外耳道狭窄的风险。该术式术后引起面神经功能障碍及感觉异常等症状也是一个不得不面对的问题<sup>[11]</sup>;⑤口内入路,从口腔入路治疗髁状突骨折必须在内镜下进行,它的优点在于

能避免损伤面神经且术后不留疤痕。但是口内切口术中组织剥离范围大,术后肿胀严重。而且不适用于粉碎性骨折和髁状突严重脱位的患者。对设备和医师水平要求较高,不易普及<sup>[12]</sup>。同样,内窥镜辅助髁状突复位后仍需钛钉或钛板固定。

### 3.3 经耳屏小切口手术入路治疗髁状突矢状骨折的优点

理想的手术切口应为切口隐蔽无瘢痕、无面神经损伤、能充分暴露骨折部位。本研究所使用经耳屏小切口,切口长度仅4 cm左右,切口沿耳屏切开,伤口愈合后瘢痕几乎看不到,具有非常良好的美观性。面神经颞支在颞部走形于颞浅筋膜深面,颞浅动静脉前方的脂肪层中,手术入路采取从颞浅动静脉后方切开,将颞浅动静脉向前方拉开的方法切开颞深筋膜浅层,再从颞深筋膜浅层深面翻瓣的方法切开暴露颞弓,这样的手术设计巧妙的绕开了面神经颞支,不需要解剖面神经即可保障面神经不被手术损伤。术中以颞中静脉为解剖标志<sup>[13]</sup>,确定翻瓣层次的准确性。从颞深筋膜浅层深面翻瓣至颞弓表面,颞深筋膜延续为颞骨骨膜,即可从颞骨骨膜表面翻瓣,避免损伤面神经颞支(图3)。从颞骨骨膜表面翻瓣,向前方拉开,即可完整暴露颞下颌关节关节囊,切开关节囊,可以在直视下进行髁状突手术,视野良好,手术层次清晰,完成术后后分层缝合伤口即可。本研究2例患者出现轻度面瘫,分别为患侧颞支Ⅱ级面瘫及患侧颞支Ⅲ级面瘫、颞支Ⅱ级面瘫,笔者考虑为面神经颞支、颞支靠近术区,术中拉开软组织暴露术区引起暂时性面神经功能障碍,给予神经营养治疗后3个月内均恢复正常。

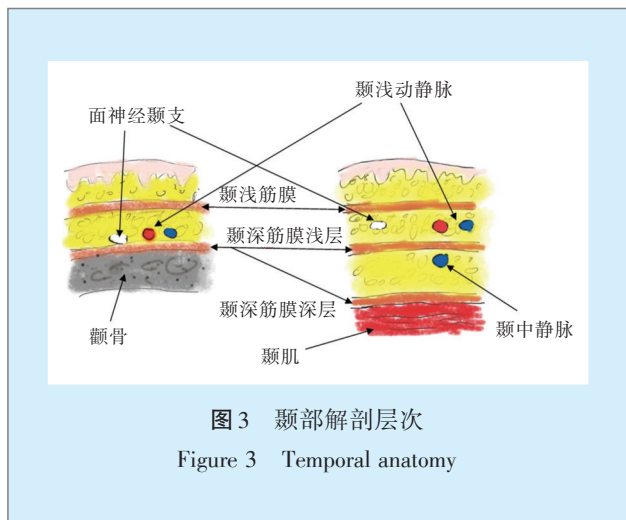


图3 颞部解剖层次  
Figure 3 Temporal anatomy

综上所述,经耳屏小切口入路治疗髁状突骨折,具有切口隐蔽、术后瘢痕不明显;解剖标志清楚、易于掌握,可避损伤面神经;手术视野良好,可直视下进行颞下颌关节手术的特点;是一种较为理想的颞下颌关节手术入路,适合在临床应用。

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