中华骨科杂志
Chinese Journal of Orthopaedics
中华医学会系列杂志



中华骨科杂志 » 2013, Vol. 33 » Issue (10): 1036-1041 DOI: 10.3760/cma.j.issn.0253-2352.2013.10.010



# “ / ＼ ”形小切口钢板螺栓加压内固定治疗跟骨关节内骨折

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# The treatment of displaced intra-articular calcaneal fractures by "/ ＼" shape incision with compression fixation and stud bolts

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全文: PDF (1050 KB) HTML (1 KB) 输出: BibTeX | EndNote (RIS) 背景资料

摘要 目的 探讨跟部外侧“ / ＼ ”形小切口钢板螺栓加压内固定治疗跟骨关节内骨折的方法及疗效。方法 回顾性分析2010年8月至2011年11月手术治疗并获得随访的130例(140足)跟骨关节内骨折患者资料，男117例(127足)，女13例(13足)；年龄17~73岁，平均42.3岁。按Sanders分型：Ⅱ型49足，Ⅲ型75足，Ⅳ型16足。手术采用跟部外侧“ / ＼ ”形小切口，即跟腱前缘直切口和跗骨窦斜切口，使用跟骨解剖钢板螺栓加压固定治疗跟骨关节内骨折。手术前、后摄跟骨轴位、侧位X线片和跟骨CT扫描，测量跟骨B?hler角、Gissane角、内翻角、距下关节面骨折移位距离、跟骨高度、中点宽度、长度。根据Maryland足部评分及AOFAS踝-后足评分评价疗效。结果 130例患者均获得随访，随访时间15~31个月，平均20个月；术后平均出血量(194.24±104.17) ml，无一例发生切口皮缘坏死及伤口感染。骨折愈合时间45~86 d，平均(54.51±20.38) d。手术前、后B?hler角分别为6.27° ±11.81° 、27.21° ±8.28° ，Gissane角分别为108.36° ±21.77° 、117.47° ±12.93° ，跟骨中点宽度为(47.35±5.85) mm、(35.96±4.14) mm，高度为(39.79±5.85) mm、(47.64±3.83) mm，长度为(78.30±5.81) mm、(79.41±5.30) mm。Maryland足部评分为42~100分，优71足，良59足，可7足，差3足，优良率92.86%(130/140)。AOFAS踝-后足评分为45~100分，优76足，良58足，可5足，差1足，优良率95.71%。术后12足踝关节内外翻活动较健侧受限5° ~8° ，其中3足于术后1年发生距下关节创伤性关节炎。结论 外侧“ / ＼ ”形小切口钢板螺栓加压内固定治疗跟骨关节内骨折可显著减少伤口并发症，恢复跟骨解剖形态和距下关节面平整，促进骨折早期愈合。

关键词： 跟骨 骨折 骨折固定术 内

Abstract: Objective To explore the method and efficacy of the treatment for displaced intra-articular calcaneal fractures by lateral "/ ＼" shape incision with compression fixation and stud bolts. Methods From August 2010 to November 2011, used the lateral "/ ＼" shape incision, namely the straight incision front of achilles tendon and the sinus tarsi oblique incision, 140 feet with displaced intra-articular calcaneal fractures in 130 patients were treated with calcaneal anatomical plate and compression fixation with stud bolts. There were 117 males and 13 females, with an average age of 42.3 years. According to Sanders classification, the fracture patterns include 49 cases for type II, 75 for type III, and 16 for type IV. The B?hler and Gissane angle as well as the varus angle, the displacement of subtalar articular surface, the width, height and length of the calcaneum were measured on pre- and post-operative radiographs. The Maryland and AOFAS foot score were used to assess the results. Results One hundred and thirty patients got followed up with an average of 20 months (range, 15-31 months). There were no incision edge necrosis and wound infection. The time of fracture union was 54.51±20.38 d (range, 45-86 d). The amount of bleeding was 194.24±104.17 ml. Accorrding to the preoperative and postoperative radiographs, the mean B?hler angle was 6.27° ±11.81° and 27.21° ±8.28° ; the mean Gissane angle was 108.36° ±21.77° and 117.47° ±12.93° , the mean calcaneal width was 47.35±5.85 mm and 35.96±4.14 mm, the mean calcaneal height was 39.79±5.85 mm and 47.64±3.83 mm, the mean calcaneal length was 78.30±5.81 mm and 79.41±5.30 mm. Based on the Maryland foot score, the excellent and good rate was 92.86% (130/140). Based on the AOFAS foot score, the excellent and good rate was 95.71% (134/140). Compared with the normal side, the ankle varus of 12

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feet were restriction for 5°-8°, 3 feet were sufferd for subtalar arthritis. Conclusion Lateral "/ \" shape incision" with compression fixation and stud bolts to is a safe and effective method for the treatmeat for the displaced intra-articular calcaneal fractures, significantly reducing and avoiding the wound complications, restoring calcaneal anatomical morphology and the surface of subtalar joint. The compression fixation with stud bolts is reliable and stability, it can promote the early healing of fractures.

Key words: Calcaneus Fractures bone Fracture fixation, internal

收稿日期: 2013-10-21;

引用本文:

曲家富,闫荣亮,李生旺等. “/ \”形小切口钢板螺栓加压内固定治疗跟骨关节内骨折[J]. 中华骨科杂志, 2013, 33(10): 1036-1041.

QU Jia-Fu,YAN Rong-Liang,LI Sheng-Wang et al. The treatment of displaced intra-articular calcaneal fractures by "/ \" shape incision with compression fixation and stud bolts[J]. Chin J Orthop, 2013, 33(10): 1036-1041.

链接本文:

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