

AF 内固定加椎板关闭术治疗胸腰椎爆裂骨折

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【摘要】 目的 比较和评价后路椎板切开骨折复位椎板关闭术和结合 AF 系统两种不同手术方法在治疗胸腰椎爆裂骨折中的疗效。方法 回顾性分析 29 例胸腰椎爆裂骨折患者, 其中早期 8 例单纯采用后路椎板切开、骨折复位、关闭椎板的手术; 后期用此法并结合 AF 系统治疗 21 例。比较术后症状的改善和 X 线变化。结果 全部病例获得 3 个月~6 年随访, 脊髓神经功能及椎体高度均有不同程度恢复。AF 内固定组无局部症状, 后凸畸形角由术前平均 28.4° 减少到术后 3.1°; 单纯组存在腰部症状, 后凸畸形角由术前平均 26.2° 减少到 6.9°。结论 AF 内固定结合骨折复位椎板关闭术, 骨折复位及减压彻底, 脊柱稳定性好, 术后硬膜外瘢痕粘连少, 是治疗胸腰椎爆裂骨折的一种理想方法。

【关键词】 骨折固定术, 髓内; 骨折愈合; 胸椎; 腰椎

Treatment of thoracolumbar burst fracture by AF internal fixation and vertebral lamina closure CHANG Yanhai, LUO Zhenqun, XU Honghai, et al. Department of Orthopaedics, People's Hospital of Shanxi (Shanxi Xi'an, 710068, China)

【Abstract】 **Objective** To compare and evaluate the results of different operative methods in thoracolumbar burst fracture. **Methods** Twenty-nine patients of the thoracolumbar burst fracture were reviewed retrospectively, 8 cases were treated early by simple laminotomy fracture diaplasis and vertebral lamina reduction, another 21 cases by same method later and combining AF internal fixation system. To compare the recovery of local symptoms and X rays. **Results** Follow-up for 3 months to 6 years all the vertebral fractures were cured, the recoveries of neurological function and the heights of compressed vertebral bodies mostly recovered. The group with internal fixation was no local symptom, kyphosises were corrected from 28.4 degree preoperatively to 3.1 degree postoperatively. The simple group had local pain and lumbar ankylosis, kyphosises were corrected from 26.2 degree to 6.9 degree. **Conclusion** The method of laminotomy to reposit the fracture and vertebral lamina reduction with combining AF internal fixation system is easy to operate and supply intrinsic stability, decompress thoroughly and minimize the postoperative adhesion. It is an ideal and adjuvant restorable method for thoracolumbar burst fracture.

【Key words】 Fracture fixation, intramedullary; Fracture healing; Thoracic vertebrae; Lumbar vertebrae

1994 年 5 月 - 1997 年 7 月, 我院采用椎板切开骨折块嵌入复位、椎板关闭术治疗胸腰椎爆裂骨折, 此后又开始结合椎弓根钉棒系统行内固定治疗, 其中结合 AF 技术 21 例。现就单纯后路骨折复位椎板关闭术(单纯组)和结合 AF 技术(AF 内固定组)的疗效作一对比。

1 临床资料

1.1 一般资料 本组 29 例, 男 20 例, 女 9 例; 年龄 18~51 岁, 平均 27 岁。受伤原因: 高处坠落伤 17 例, 交通事故伤 8 例, 压砸伤 4 例。受伤至手术时间

1~7 d, 其中 1 例伤后 3 周, 1 例 4 周。损伤部位: T₁₀ 1 例, T₁₁ 2 例, T₁₂ 5 例, L₁ 16 例, L₂ 3 例, T₁₂-L₁ 2 例。X 线表现: 椎体前缘高度减低均大于 1/3, 椎体后缘骨皮质连续性中断。术前后凸角(Cobb 角), 单纯组平均 26.2°(20.7°~47.2°); AF 内固定组平均 28.4°(19.4°~53.6°)。CT 提示均有骨折块突入椎管, 压迫硬膜囊。脊髓神经功能按 ASIA 分级^[1](见表 1)。单纯后路骨折复位椎板关闭者 8 例, 结合 AF 内固定者 21 例。

1.2 手术方法

术,术中椎体轴向撑开较为困难,椎管内骨块虽可嵌入复位,但术后椎体高度难以完全恢复。

该手术具有如下优点:①采用 AF 系统促使椎体的高度完全恢复,脊柱稳定性大大增强;②直视下骨折块完全复位,椎管内充分减压,对脊髓神经恢复有利;③操作简便,避免了前方、侧前方椎管减压时出血过多;④保持了脊柱结构的完整性;⑤大大减少了手术后硬膜外瘢痕粘连;⑥减少了卧床时间,有利于早期功能锻炼。手术操作中注意事项:①准确定位,避免将椎弓根钉植入椎管或椎弓根外,甚至穿透椎体前方;②轴向撑开时避免过度,要双侧交替进行;③选用合适的骨刀,在胸腰段切开椎板时要采用棘突提拉保护措施,避免加重脊髓损伤。

综上所述,胸腰椎爆裂骨折,宜尽早手术减压。

采用椎弓根螺钉内固定系统,结合椎板切开直视下骨折块完全复位、椎板关闭的方法,可恢复脊柱正常的生理解剖结构和稳定性,有效地预防手术后硬膜外瘢痕粘连。

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