

经椎弓根植骨椎体成形内服续骨活血汤治疗 胸腰椎爆裂性骨折 22 例

林志宏 洪启东

(福建省厦门市同安区中医院骨科, 厦门, 361100)

摘要 目的:观察经椎弓根椎体成形内服续骨活血汤治疗胸腰椎爆裂性骨折的临床疗效。方法:自 2006 年 7 月至 2010 年 3 月期间采用后路椎弓根螺钉固定加经椎弓根植骨椎体成形内服续骨活血汤治疗胸腰椎爆裂性骨折共 22 例,随访时间为 3~20 个月,平均 12 个月,观察术前术后椎体高度、Cobb 角及椎管矢状径变化情况。结果:22 例患者术后随访未见内固定物失败,椎体矫正度丢失经分析无统计学意义。结论:经椎弓根植骨椎体成形配合续骨活血汤内服能在椎管减压和恢复椎体高度的同时重建了椎体的前中柱,使椎体重获生物学稳定,有效减少内固定应力,降低内固定的松动、断裂和远期椎体高度的丢失,促进骨折的愈合。

关键词 胸腰椎爆裂性骨折;经椎弓根椎体成形术;植骨术;@续骨活血汤

Clinical Observation on Vertebrae Implantation via Vertebral Arch Combined with Xugu Huoxue Decoction in Treating Thoracolumbar blow-out Fracture

Lin Zhihong, Hong Qidong

(Department of orthopedics, Chinese medicine Hospital of Tong'an District, Xiamen, Fujian province, Xiamen 361100, China)

Abstract Objective: To observe the effects of vertebrae implantation through vertebral arch and Xugu Huoxue Decoction for treatment of thoracolumbar blow-out fracture. **Methods:** From the July of 2006 to the March of 2009, 22 patients with thoracolumbar blow-out fracture, underwent fixation of posterior vertebral arch by pedicle screw and implantation vertebrae through vertebral arch and took Xugu Huoxue Decoction. They were followed up time between 3 to 20 months, with an average of 12 months. The vertebral height before and after the operation, the angle of Cobb, and the changing of the sagittal diameter of vertebral canal were observed. **Results:** No fixture failure is seen in the 22 patients after operation during the follow-up time. There was no statistical significance in terms of the loss of the vertebral correction. **Conclusion:** Implantation vertebrae through vertebral arch and Xugu Huoxue Decoction can reconstruct the anterior and middle column, and decompress the vertebral canal and rebuild the vertebral height. As a result, the vertebrae regains its biological stability. Moreover, this treatment has efficiently reduced the internal fixation stress, the risk of the looseness and break of internal fixation and the loss of vertebral height in the long term, therefore, improves healing of bones.

Key Words Thoracolumbar blow-out fracture; Vertebrae implantation through vertebral arch; Implantation of bones; @ Xugu Huoxue Decoction

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胸腰椎爆裂性骨折是临床上常见的疾病,常导致脊柱严重失稳和不同程度的神经功能损害。在 2006 年 7 月至 2010 年 3 月期间,笔者根据患者的具体情况采用后路椎弓根钉复位固定经椎弓根植骨椎体成形,术后内服续骨活血汤治疗胸腰椎(T₁₂-L₃)爆裂性骨折获良好效果,现报道如下。

1 材料和方法

1.1 临床资料 自 2006 年 7 月~2010 年 3 月期间后路椎弓根螺钉固定加经椎弓根植骨椎体成形内服续骨活血汤治疗胸腰椎爆裂性骨折共 22 例。其中,男性 14 例,女性 8 例。年龄在 21~50 岁之间,平均 35.2 岁。其中,高处坠落伤 16 例,交通事故致伤 6 例。损伤节段:胸 12 椎体 8 例、腰 1 椎体 10 例、腰 2 椎体 4 例;按

Denis 分型,A 型为 12 人,B 型为 9 人,C 型为 1 人。术前神经功能损害按 Frankel 分级为:A 级 1 例,B 级 3 例,C 级 12 例,D 级 5 人,E 级 1 人。爆裂程度:椎管占位率在 25%~50% 之间,平均 41%;椎体压缩率在 45%~70%,平均 60.4%;Cobb 角在 22.5°~43.2°,平均 26.4°。

1.2 治疗方法 麻醉成功后,采用胸腰椎后正中切口,以病椎为中心纵行切开,显露上下椎体及病椎椎弓根进针点,有神经占位病变者先行椎板减压术,椎弓根定位准确后置入椎弓根钉,放置连接杆,复位骨折椎体,透视见椎体高度恢复良好后拧紧螺钉固定骨折椎体。透视下确认骨折复位满意后行经椎弓根椎体成形术。于病椎同样行定位针定位后行见定位针位置良

好,椎弓根螺钉沿病椎的椎弓根旋入直径适合的椎弓根至椎体的前柱,待椎体复位后,透视下见病椎椎体高度恢复良好,旋紧钉棒系统的螺钉,予以取出病椎的椎弓根螺钉,并用椎弓根植骨漏斗行植骨术,植入骨为术中取骨,不够者以人工骨代替,将植入骨沿着漏斗植入病椎前中部。术后平卧,给予续骨活血汤内服,3周后在腰围保护下,下地行走。

1.3 资料采集 术前术后均行椎体正侧位片及病椎CT检查,明确椎体压缩后椎体高度丢失情况及椎管狭窄情况,行椎体成形术后病椎植骨分布情况。术后随访,以椎体高度、椎间角及椎骨占位 CT 扫描评价骨折复位情况,病椎椎体成形后以 X 线片上是否有骨痂形成及椎体高度是否有丢失等来判定,记录内固定失败、成角畸形等并发症及术后随访患者的 Frankle 分级情况。

2 结果

随访时间为 3 ~ 20 个月,平均 12 个月。椎体高度、Cobb 角及椎管矢状径见表 1;Frankel 分级结果见表 2。

表 1 手术前后及随访时椎体高度、Cobb 角及椎管矢状径($\bar{x} \pm s$)

项口	术前	术后	随访		
			3个月	6个月	12个月
椎体高度比(%)	39.6±9.3	85.4±6.7	84.7±8.5	83.9±7.4	83.9±9.3
Cobb角(°)	26.4±5.6	4.9±1.7	4.9±0.9	4.8±1.0	4.6±1.1
椎管矢径(mm)	8.9±1.5	13.9±1.2	13.7±1.9	12.7±1.5	13.0±1.4

表 2 Frankel 分级结果(例数)

时间	例数(n)	Frankel 分级				
		A	B	C	D	E
术前	22	1	3	12	5	1
术后随访	22	0	2	2	7	11

3 讨论

胸腰椎的解剖学和生理学特点决定了该段椎体是脊柱外伤的多发部位^[1]。对于胸腰椎爆裂性骨折从神经功能的恢复和远期的脊柱稳定性而言早期手术具有重大的意义。自 1970 年 Camille 报道利用椎弓根螺钉行后路固定以来,后路切开复位内固定手术因解剖显露简单、创伤小而被广泛应用于胸腰椎爆裂性骨折。但是,脊柱长期的稳定有赖于自身生物学的稳定,后路经椎弓根复位内固定术,通过器械撑开复位恢复椎体高度,但骨小梁系统不能同时恢复,产生椎体内空隙,徐宝山^[2]等通过研究指出后路撑开复位后椎体间隙占椎体总体积的 13.7%,由于椎体前中柱“蛋壳样”改变使得椎体丧失结构上的完整性,McLain 等^[3]认为椎体后突畸形程度与椎体内骨小梁的破坏程度有相关性,而 Weidenbaum 等^[4]认为椎体前中柱“蛋壳样”改变是

造成术后内固定失败和矫正度丢失的主要原因。针对“蛋壳样”变 Daniaux^[5]在 1982 年报道了经椎弓根向椎体内注入自体骨浆,获良好疗效,后路椎弓根固定加经椎弓根植骨椎体成形术得到重视和发展。虽然 Knop 和 Alanay^[6-7]均报道在椎体植骨并不能降低内固定的失败和矫正度的丢失,但马维虎^[8]等认为这和未清除软组织及不利于骨愈合的应力环境有关,并认为经椎弓根植骨椎体成形能有效防止后期内固定松动和矫正度的丢失。徐宝山等^[2]通过尸体生物力学实验说明经椎弓根植骨能增加伤椎的刚度和硬度,降低内固定的应力。后路椎弓根钉内固定,只能提供临时固定即暂时的稳定,真正永久的稳定是骨性融合。高海兴等^[9]通过改良式椎体成形术,结合内固定治疗胸腰椎骨折,植骨融合率高,能有效恢复椎体高度和防止术后矫正度丢失。笔者通过后路复位内固定恢复病椎高度和胸腰段的生理曲度,在坚强内固定的前提下使用椎弓根植骨漏斗在病椎的前中柱植入人工骨或自体骨,重建病椎的前中柱。22 例患者术后随访未见内固定物失败,椎体矫正度丢失经统计学分析无统计学意义。

续骨活血汤出自《中医伤科学讲义》,由当归尾、赤芍、白芍、生地黄、红花、土鳖虫、骨碎补、煅自然铜、川续断、落得打、乳香、没药组成,其功效为续骨活血、祛瘀止痛。徐颖鹏^[10]和王力^[11]均通过实验发现,活血化瘀药物能加快微循环的血流速度,促进骨折端成骨细胞的增殖和分化,促进骨折的愈合。我们在术后按中医辨证给予续骨活血汤内服,能加速植入骨的爬行替代,促进骨折愈合,防止后期椎体高度的丢失。苏安山^[12]通过对活血续骨汤与骨康灵胶囊促进骨折愈合临床的比较,认为活血续骨汤对骨折愈合具有明显促进效果。

通过对 22 例临床病例的观察和疗效分析,我们认为在后路切开复位内固定基础上,经椎弓根植骨配合续骨活血汤内服能在椎管减压和恢复椎体高度的同时重建了椎体的前中柱,使椎体重获生物学稳定,有效减少内固定应力,降低内固定的松动、断裂和远期椎体高度的丢失,促进骨折的愈合。

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七味药酒治疗压疮的观察与护理体会

杜艳梅¹ 郑向晖² 杜艳萍³ 吉丽⁴ 胡玉霞⁵ 罗玲⁶ 芦璇⁷ 夏远舰⁸

(1 河北省邯郸市第二医院感染管理科, 邯郸, 056001; 2 河北省邯郸市第二医院内二科, 邯郸, 056001; 3 河北省邯郸市邯鄲县医院药品设备科, 邯鄲, 056001; 4 河北省邯郸市第二医院内一科, 邯鄲, 056001; 5 河北省邯郸市机械电子工业局职工医院功能科, 056001; 6 河北省邯郸市第二医院内分泌科, 邯鄲, 056001; 7 河北省邯郸市冀中能源峰峰集团总医院医务科, 邯鄲, 056001; 8 河北省邯郸市中心医院 CT 室, 邯鄲, 056001)

摘要 目的: 观察七味药酒联合护理治疗压疮的临床疗效及护理体会。方法: 112 例压疮患者随机分为治疗组和对照组各 56 例, 2 组均采用压疮常规护理, 在此基础上, 治疗组加用七味药酒外敷, 观察 2 组临床疗效和伤口愈合时间、压疮愈合计分表评分差异。结果: 治疗组总有效率 91.07%; 对照组总有效率 75%; 2 组比较, 有统计学意义 ($P < 0.05$); 组间治疗后比较, 治疗组伤口愈合时间和 PUSH 评分较对照组相比明显缩短, 2 组比较, 有统计学意义 ($P < 0.05$)。结论: 七味药酒联合护理治疗压疮疗效确切, 值得临床推广应用。

关键词 七味药酒; 压疮; 护理

Nursing Experience and Efficacy of Seven Kinds of Medicinal Liquor Treating Bedsores

Du Yanmei¹, Zheng Xianghui², Du Yanping³, Ji Li⁴, Hu Yuxia⁵, Luo Ling⁶, Lu Xuan⁷, Xia Yuanjian⁸

(1 Hospital Infection Management Department of Handan Second Hospital, Handan 056001, China; 2 The Second Internal Medicine Department of Handan Second Hospital, Handan 056001, China; 3 Pharmaceutical Equipment Department of Handan County Hospital, Handan 056001, China; 4 The First Internal Medicine Department of Handan Second Hospital, Handan 056001, China; 5 Function Department of Mechanical and Electronic Industrial Bureau Worker's Hospital, Handan 056001, China; 6 The Endocrinology Department of Handan Second Hospital, Handan 056001, China; 7 Medical Department of Jizhong Energy Fengfeng Group General Hospital, Handan 056001, China; 8 CT Room of Handan Central Hospital, Handan 056001, China)

Abstract Objective: To study the nursing experience and efficacy of seven kinds of medicinal liquor on treating bedsores. **Methods:** One hundred and twelve patients suffered from bedsores were randomly divided into treatment group and control group, both of the groups were given conventional nursing of bedsores. Besides, the treatment group was given seven kinds of medicinal liquor for external application. The efficacy and differences of the wound healing time, healing score of two groups were observed. **Results:** The total effective rate of the treatment group was 92.45%, and the control group was 75.47%, there was statistically difference between two groups ($P < 0.05$); the wound healing time, PUSH ratings were significantly reduced in treatment group compared with that of control group ($P < 0.05$). **Conclusion:** The seven kinds of medicinal liquor combined nursing had obvious effect in treating bedsores, which is worthy of clinical application.

Key Words Seven kinds of medicinal liquor; Bedsores; Nursing

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