

· 临床研究 ·

股骨干骨折合并同侧股骨颈骨折治疗的临床观察

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【摘要】 目的:探讨股骨干合并同侧股骨颈骨折的治疗特点和不同固定方法的疗效。**方法:**股骨干骨折合并同侧股骨颈骨折 27 例, 男 22 例, 女 5 例; 年龄 14~65 岁, 平均 35 岁。动力髋螺钉(DHS)固定 3 例, 加压钢板加空心加压螺钉固定 12 例, 重建钉固定 8 例, 顺行髓内钉加空心加压螺钉固定 4 例。13 例固定术前用克氏针临时固定股骨颈骨折。**结果:**术后随访 36~75 个月, 平均 44 个月。25 例股骨颈骨折平均愈合时间 4.5 个月, 2 例股骨颈骨折不愈合。27 例股骨干均愈合, 平均愈合时间 6 个月。未用克氏针临时固定股骨颈骨折 14 例中, 2 例出现股骨颈不愈合, 3 例轻度髓内翻畸形。**结论:**股骨干合并同侧股骨颈骨折有许多固定方法可供选择, 加压钢板加空心加压螺钉固定简便易用, 在实施固定术前用克氏针临时固定股骨颈骨折可避免股骨颈骨折再移位和损伤。

【关键词】 股骨干骨折; 股骨颈骨折; 骨折固定术, 内

Treatment for ipsilateral fractures of the femoral neck and shaft LIU Shao-jun, HE Wei, ZHANG De-xing, FAN Yue-guang. The Centre of Hip Joint Orthopaedic Surgery, the First Hospital Affiliated to TCM of Guangzhou University, Guangzhou 510405, Guangdong, China

ABSTRACT Objective:To investigate the curative effect of different internal fixation for ipsilateral fractures of the femoral neck and shaft. **Methods:**By retrospective study of 27 patients who sustained ipsilateral femoral shaft and neck fractures from June 1993 to March 2004. There were 22 male and 5 female, with an average age of 35 years(range in 14 to 65 years). The femoral neck and shaft fractures were stabilized with dynamic hip screw system (DHS) in 3 cases, with dynamic compression plate and cannulated lag screw in 12 cases, with constructive nail in 8 cases, with antegrade intramedullary locking nail and cannulated lag screw in 4 cases. There were 13 cases used of the temporary fixation of Kirschner wire before the pexia of the femoral neck fractures. **Results:**All of the patients were followed up for 36 to 75 months, with an average of 44 months. The average healing period of femoral neck fracture was 4.5 months in 25 cases, nonunion of femoral neck fractures in 2. The average healing period of femoral shaft fracture was 6 months in 27 cases. In 14 cases that not using temporary fixation of femoral neck with Kirschner wire, there were nonunion of femoral neck in 2 and slight coxa vara in 3. **Conclusion:**There are a wide choice of internal fixation method for treatment of ipsilateral fracture of the femoral neck and shaft, the fixation with dynamic compression plate and cannulated lag screw is a handy method. It would be avoided to the replacement and trauma, temporary fixing the fracture with Kirschner wire before the pexia of the femoral neck fracture.

Key words Femoral shaft fracture; Femoral neck fracture; Fracture fixation, internal

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股骨干骨折合并同侧股骨颈骨折随着交通、工地等高能量损伤增加, 有增多趋势, 多合并其他损伤。临床诊疗中容易出现股骨颈骨折漏诊, 临床处理复杂, 在治疗方案选择上存在许多值得探讨的问题, 如果处理不当容易发生股骨颈骨折不愈合。现收集 1993 年 6 月至 2004 年 3 月治疗的 27 例患者, 对诊疗中出现的问题进行探讨。

1 临床资料

27 例中, 男 22 例, 女 5 例; 年龄 14~65 岁, 平均 35 岁。其中高处坠落伤 15 例, 交通伤 12 例。复合其他损伤有 6 例, 涉及损伤有前臂骨折、髌骨骨折、腰椎骨折、肋骨骨折、股骨髁骨

折、胫骨骨折、踝部骨折、髌臼骨折以及颅脑损伤。股骨颈骨折 Garden I 型 1 例, II 型 11 例, III 型 14 例, IV 型 1 例, 其中股骨颈基底部骨折 16 例。股骨干粉碎性骨折 8 例。中上 1/3 骨折 7 例, 中段 1/3 骨折 12 例, 中下 1/3 骨折 8 例。首诊漏诊股骨颈骨折 8 例。

2 治疗方法

复合损伤不能立即手术患者行胫骨结节牵引, 病情稳定后切开复位内固定, 骨折到内固定手术时间 2~6 周, 共 4 例。手术方法包括: ①动力髋螺钉(DHS)固定 3 例, 股骨干中上 1/3 骨折, 股骨颈基底部骨折, 2 例辅助 AO 空心加压螺钉固定股骨颈骨折, 防止旋转移位。②AO 空心加压螺钉与加压钢板固定 12 例, 其中 3 例股骨颈骨折无明显移位, 先固定股骨

颈再固定股骨干;3 例先固定股骨干骨折再固定股骨颈;6 例先采用闭合复位多根克氏针临时固定股骨颈骨折,固定股骨干骨折后,再使用 AO 钉固定股骨颈。③重建钉固定 8 例,辅助 AO 空心加压螺钉固定股骨颈骨折 4 例,4 例采用了多根克氏针临时固定股骨颈骨折方法。④顺行髓内钉固定 4 例,均辅助 AO 空心加压螺钉固定股骨颈骨折,有 1 例在股骨干骨折固定透视时发现股骨颈骨折,3 例采用了多根克氏针先临时固定股骨颈骨折方法。

手术后卧床,维持外展旋中位,根据股骨颈骨折复位固定稳定程度,在 2~6 周下地扶拐不负重行走,3 个月后根据股骨颈骨折愈合情况逐步负重行走。有膝关节损伤者,在 2~6 周内进行膝关节功能康复锻炼。骨折 X 线片显示骨性愈合后方可弃拐行走。

3 结果

患者术后 6 个月内 4~6 周摄 X 线片复查 1 次,6~18 个月后每 3 个月复查 1 次,观察记录股骨颈、股骨干骨折骨性愈合时间及颈干角的变化。股骨颈骨折复查至少 3 年以上。患者平均随访 44 个月(36~75 个月),按 Friedman 和 Wyman 评价系统^[1]评价疗效:优良,日常生活不受限,无疼痛,髋或膝功能 80% 以上;较好,日常生活轻度受限,轻中度疼痛,功能范围在 50%~80%;差,日常生活中度受限,严重疼痛,功能低于 50%。

本组 2 例股骨颈骨折不愈合合并股骨头坏死,其中 1 例 DHS 固定后 14 个月行人工全髋置换术,1 例顺行交锁钉固定 10 个月后采取带血管蒂骨瓣植入治疗,5 个月后股骨颈完全愈合,通过限制负重,临床随访 5 年未发生股骨头塌陷。25 例股骨颈骨折平均愈合时间 4.5 个月(3~8 个月),2 例股骨颈骨折愈合时间超过 6 个月,均为重建钉固定术后;加压钢板并 AO 空心螺钉固定(见图 1)12 例,股骨颈骨折平均愈合时间 3.8 个月(3~5 个月);重建钉与顺行髓内钉并 AO 钉固定(见图 2),除 1 例股骨颈骨折治疗失败,11 例股骨颈骨折平均愈合时间 5 个月(4~8 个月)。3 例出现轻度髓内翻,较健侧颈干角小 5°~15°,其中 2 例重建钉固定,1 例顺行交锁固定,治疗时均未采用克氏针先临时固定股骨颈的方法。27 例股骨干均愈合,平均愈合时间 6 个月(4~11 个月),愈合迟缓 1 例重建钉固定(术后 5 个月动力化),1 例顺行髓内钉固定(术后 4 个月动力化)。2 例合并膝关节损伤患者术后 3 个月功能较差,经康复科进行功能康复训练,膝关节功能均恢复正常。本组无一例发生术后感染,按 Friedman 和 Wyman 评价标准评定疗效:优良 24 例,较好 1 例,差 2 例。

4 讨论

股骨干骨折合并同侧股骨颈骨折在临床上不是常见损伤,临床中常见股骨干粉碎性骨折(本组 8 例,占 29%)。股骨颈骨折的特点表现为基底部骨折,本组 20 例(74%),临床首诊中容易出现股骨颈骨折漏诊(本组 8 例,占 29%)。文献报道股骨颈骨折漏诊率约 20%~50%^[2]。

Hung 等^[3]报道了加压钢板加空心加压螺钉固定此类骨折,方法简单容易操作,92% 疗效良好。采用加压钢板加空心加压螺钉固定方法可以避免固定过程中顾此失彼的窘境,临床运用相对简单,出现失误的概率较小。本组结果显示股骨颈平均愈合时间较其他方法短。重建钉和顺行髓内钉^[4-5]固定具



图 1 男,46 岁,股骨干骨折并同侧股骨颈骨折 1a,1b.术前 X 线片 1c.采用钢板加压螺钉固定术后 3 个月 X 线片显示骨折愈合
Fig.1 A 46-year-old man with ipsilateral hip and femoral shaft fractures 1a,1b.Pre-operative X-ray film 1c.Three months after the fixation with dynamic compression plate and cannulated lag screw,X-ray film showed fracture healing of femoral neck



图 2 男,35 岁,股骨干骨折并同侧股骨颈、髌骨骨折 1a.术前 X 线片 1b,1c.重建钉辅助空心螺钉固定术后 X 线片显示轻度髓内翻,股骨干骨折在动力化后愈合
Fig.2 A 35-year-old man with ipsilateral fractures of hip, femoral shaft and patella 1a.Pre-operative X-ray film 1b,1c.After fixation with constructive nail and cannulated lag screw,X-ray film showed a slight coxa vara, the femoral shaft fracture healing by dynamic compression

有损伤小的优点,但易出现股骨颈骨折固定不稳定和延迟愈合;DHS 固定抗股骨头旋转作用较差,临床中须注意辅助空心加压螺钉固定股骨颈骨折。

骨折处理的先后,一般认为先固定股骨干骨折,可避免股骨颈骨折内固定松动。但先固定股骨干可导致股骨颈骨折再移位,增加了股骨颈骨折解剖复位固定的难度。本组采取先闭合用多根导针或克氏针临时固定股骨颈骨折,再固定股骨干,然后固定股骨颈骨折的方式,这样既避免了先固定股骨干致股骨颈再移位,也避免了后固定股骨干致股骨颈内固定松动的问题,临床实践中可缩短手术时间。

处理股骨干骨折合并同侧股骨颈骨折,应选择熟悉的内

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人体重心测试系统诊断颈性眩晕的评价

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【摘要】 目的:建立一种生物力学测试方法,为临床诊断颈性眩晕提供量化依据。**方法:**2004 年 7 月至 2006 年 11 月,应用人体重心测试系统对 86 例正常人(男 40 例,女 46 例;年龄 20~74 岁,平均 30 岁)和 75 例颈性眩晕患者(男 16 例,女 59 例;年龄 20~74 岁,平均 44.5 岁)进行定量测试和定性诊断,并用目前颈性眩晕的临床诊断方法(current diagnosical method of cervical vertigo, CDM 法)作为对照,进行临床诊断性试验。对静态站立睁、闭眼时重心测试诊断颈性眩晕(static posturography method of cervical vertigo, SPG 法)的临床价值进行评价。**结果:**闭眼时 SPG 法诊断颈性眩晕的灵敏度为 76%,特异度为 93%,Youden 指数为 69%,符合率为 85.1%;阳性预测值为 90.5%,阴性预测值为 93%,阳性似然比为 10.893,阴性似然比为 0.258。睁眼时 SPG 法诊断颈性眩晕的灵敏度为 49.3%,特异度为 87.2%,Youden 指数为 38.6%,符合率为 69.6%;阳性预测值为 77.1%,阴性预测值为 87.2%,阳性似然比为 3.857,阴性似然比为 0.581。无论睁眼还是闭眼状态,正常人的重心移动轨迹图以前后型为多见,颈性眩晕患者则以弥散型为多见。**结论:**闭眼时人体重心测试法能较准确地鉴别颈性眩晕患者与正常者,其真实性、可靠性及临床应用价值较好,已达到客观化、量化诊断颈性眩晕的基本要求。而睁眼状态时的漏诊率较高,难以满足临床诊断要求。

【关键词】 眩晕; 诊断; 生物力学; 重心

Evaluation of diagnosing cervical vertigo with computerized static posturography HUANG A-yong, ZHOU Wei, ZHONG Hong-gang, ZHANG Yong-dong, WU Qing-sheng, SUN Yu-zhong, LI Guo-qiang. Wangjing Hospital Affiliated of China Academy of Chinese Medical Sciences, Beijing 100102, China

ABSTRACT Objective: To provide a quantitative base for diagnosing cervical vertigo by establishing a biomechanics method. **Methods:** From July 2004 to Nov 2005, the static posturography (SPG) of normal 86 health individuals and 75 patients with cervical vertigo were quantitatively measured and qualitative diagnosis respectively in closed and open eyes. There were 40 male and 46 female in health adults, ranging from 20 to 74 years old (mean 30 years). There were 16 male and 59 female in vertigo patients, ranging from 20 to 74 years old (mean 44.5 years). In contrast to current diagnosis method of patients with cervical vertigo, the clinical value was evaluated. **Results:** Under the state of closed eyes, the sensitivity of SPG diagnosing cervical vertigo was 76%; the specificity was 93%; the Youden index was 69%; the coincidence was 85.1%; the positive predictive value was 90.5%; the negative predictive value was 93%; the positive and negative likelihood ratio were 10.893 and 0.258 respectively. Under the state of open eyes, the sensitivity was 49.3%; the specificity was 87.2%; the Youden index was 38.6%; the coincidence was 69.6%; the positive predictive value was 77.1%; the negative predictive value was 87.2%; the positive likelihood ratio was 3.857; the negative one was 0.581. Regardless of closed or open eyes, forward-backward type shift orbit was the most common pattern in the normal individuals. However, diffuse type shift orbit was the most prominent pattern in the patients

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固定方法,由于易发生股骨颈骨折不愈合,应优先考虑股骨颈骨折固定的稳定性问题,采取克氏针先临时固定股骨颈骨折可以减少股骨颈骨折再移位与损伤。

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