

前外侧入路人工关节置换治疗股骨转子下骨折并股骨颈陈旧性骨折

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【摘要】目的:探讨股骨转子下骨折并股骨颈陈旧性骨折经一次性关节置换术的临床疗效。方法:自 2003 年 10 月至 2013 年 10 月,对 7 例外伤性股骨转子下新鲜骨折伴股骨颈陈旧性骨折患者行一次性人工髋关节置换术,其中男 5 例,女 2 例;年龄 69~80 岁,平均 74.5 岁。股骨颈骨折按照 Garden 分型:IV 型 2 例,V 型 5 例。股骨骨折类型按照 AO 分类均为 A1 型长斜形股骨转子下骨折,均采用生物涂层长柄股骨假体。术后观察其并发症并采用 Charnley 评分系统评价髋关节功能。结果:7 例患者均获随访,时间 12~24 个月,平均 18 个月。术后泌尿系统感染 1 例,深静脉栓塞 1 例。5 例患者在术后 6 个月恢复步行能力,2 例在 1 年后仍需扶拐步行。按 Charnley 髋关节功能评分标准,总分(15.0±2.5)分,其中优 4 例,良 2 例,中 1 例。结论:前外侧入路人工髋关节置换治疗股骨转子下骨折并股骨颈陈旧性骨折,具有关节稳定性好、并发症少、恢复快、疼痛轻、可早期下地活动的优点。

【关键词】 髋骨折; 股骨颈骨折; 前外侧入路; 关节成形术,置换,髋

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Treatment of fresh subtrochanteric fracture combined with old femoral neck fracture with hemiarthroplasty through anterolateral approach Li Qiang, XIE Xiang-ren, WANG Quan-bin, and LU Juan. College of Basic Medicine, Medical College of Hubei, Shiyan 442000, Hubei, China

ABSTRACT Objective: To explore the clinical effects of one-stage hemiarthroplasty in treating fresh subtrochanteric fracture combined with old femoral neck fracture. **Methods:** From October 2003 to October 2013, 7 patients with fresh subtrochanteric fracture and old femoral neck fracture were treated with hemiarthroplasty in one stage. There were 5 males and 2 females, aged from 69 to 80 years old with an average of 74.5 years. According to the Garden classification, 2 cases were type IV and 5 cases were type V. According to the AO classification of subtrochanteric fracture, all cases were type A1 (long oblique femoral subtrochanteric fractures). Biological coating long handle femoral prosthesis was used in the patients. The hip joint functions were assessed according to Charnley scoring system after all hemiarthroplasty. **Results:** Seven patients were followed up from 12 to 24 months with an average of 18 months. There were 1 case with urinary system infection and 1 case with deep venous thrombosis. Of all, 5 cases recovered the walk ability at 6 months after operation and 2 cases could walk with the help of the crutch at 1 year after operation. According to Charnley scoring system to assess the hip joint function, the total Charnley scores reached 15.0±2.5, and 4 cases got an excellent results, 2 good, 1 fair. **Conclusion:** Arthroplasty through anterolateral approach can obtain satisfactory clinical effects in treating fresh subtrochanteric fracture combined with old femoral neck fracture, it has advantages of good joint stability, little pain, less complication, quickly recover, early activities on fields.

KEYWORDS Hip fractures; Femoral neck fractures; Anterolateral approach; Arthroplasty, replacement, hip

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临床工作中常遇到一些陈旧股骨颈骨折且股骨头缺血坏死的老年患者,再次外伤导致同侧股骨转子下骨折,面对陈旧股骨颈骨折和转子下骨折治疗起来比较棘手。目前,髋关节置换已经成为髋关节周围骨折治疗的常规手术,其良好疗效已被大量长期随访证实。传统的后外侧入路,创伤较大,发生后脱

位的危险性增加。2003 年 10 月至 2013 年 10 月,笔者采用前外侧入路人工关节置换治疗股骨转子下骨折合并股骨颈陈旧骨折 7 例,总结报告如下。

1 临床资料

本组 7 例,男 5 例,女 2 例;年龄 69~80 岁,平均 74.5 岁。均为股骨转子下骨折合并股骨颈陈旧性骨折。病程 6 个月~9 年,平均 5.8 年。6 例伴有不同程度的高血压、冠心病、糖尿病,其中 1 例患者骶尾部有 I 度褥疮合并肺部感染。股骨颈骨折按 Garden^[1]

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分类:IV型 2 例,V型 5 例。股骨骨折类型按照 AO^[2] 分类均为 A1 型长斜形股骨转子下骨折。

2 治疗方法

2.1 手术方法

入院后完善相关检查,控制好基础疾病。连续硬膜外麻醉满意后,患者采取仰卧位,患侧臀部用一扁枕垫高,使身体与手术台呈 30°角。切口以股骨骨折近端至股骨大转子最高点中心行倒“L”形切口,上方沿髂嵴外唇至髂前上棘,下方至大转子下骨折远端 2~3 cm,切口长 15~20 cm。首先复位固定股骨骨折端,用记忆合金环抱器加强固定股骨骨折断端,取同侧髂骨或同种异体骨植骨,沿切口方向切开阔筋膜,确定臀中肌前缘,沿肌纤维方向于前 1/3 与后 2/3 交界处钝性分开。于大转子止点处弧形切断止点,插入 Hoffman 拉钩显露下方臀小肌,再切断其前侧部止点,切口下段延伸至股外侧肌,沿股骨前侧剥离 1 cm,显露前上外侧关节囊。去除关节囊后,用复位钳夹住环抱器外旋内收脱位髋关节,股骨颈骨后切除腰大肌表面部分关节囊,即可满意显露髋臼,假体(均采用北京力达康公司生产的第 3 代珊瑚面微孔型人工髋关节系统假体系列,均为混合固定型,远端直径为 10.5~14.5 mm,平均为 12.5 mm)安装完毕后将切断的臀中、小肌缝回原处,放置引流管。术中出血自体血回输。

2.2 术后处理

运用抗生素及脱水消肿药 2 d。24~48 h 拔除引流管,14 d 伤口拆线后健侧单足负重扶双拐下地,2 个月后开始患足部分负重,3 个月后借助助行器负重行走。出院后要求按照术前内科疾病的治疗,特别是血糖的控制,同时服用一定的钙剂预防骨质疏松。

3 结果

3.1 疗效评估标准

采用 Charnley 髋关节功能评分标准^[3]从疼痛程度、活动度及行走能力 3 个方面进行评价,每项 6 分,总分 18 分。优 15~18 分,良 12~14 分,中 5~11 分,差 <5 分。

3.2 疗效结果

7 例均获随访,时间 12~24 个月,平均 18 个月。手术时间 80~120 min,平均 90 min;出血量 400~800 ml,平均 600 ml。1 例出现下肢深静脉栓塞,大腿弥漫性肿胀、疼痛,Homan 征阳性,经下肢彩超确诊,血栓通注射液和皮下注射低分子肝素钙治疗 7 d 后症状消失。术后无感染、坐骨神经损伤、严重股区疼痛及关节脱位发生。按照 Charnley 髋关节功能评分标准,疼痛(5.0±0.5)分,行走能力(4.5±0.7)分,活动度(5.5±0.2)分,总分(15.0±2.5)分。本组优 4 例,良 2 例,中 1 例。术后 1 年半随访患者均恢复正常生活。典型病例见图 1-2。



图 1 患者,女,78 岁,右股骨转子下骨折并右股骨颈陈旧性骨折 1a. 术前骨盆 X 线片示右股骨颈陈旧性骨折 1b. 术前右股骨近端正位 X 线片示右侧股骨转子下骨折 1c. 前外侧手术入路切口 1d. 术后右侧髋关节 X 线片示关节位置良好 1e. 术后 2 个月患者借助助行器负重行走 1f. 术后 1 年右侧髋关节正位 X 线片显示假体无松动

Fig.1 A 78-year-old female patient with right femoral subtrochanteric fracture combined with old femoral neck old fracture 1a. Preoperative X-ray film showed the right old femoral neck fracture 1b. Preoperative AP X-ray showed the right femoral subtrochanteric fracture 1c. The picture of operative incision with anterolateral approach 1d. Postoperative X-ray showed the position of right joint prosthesis was good 1e. The patient could walk using a mobility aids at 2 months after operation 1f. One year after operation, AP X-ray showed no loosening of the prosthesis

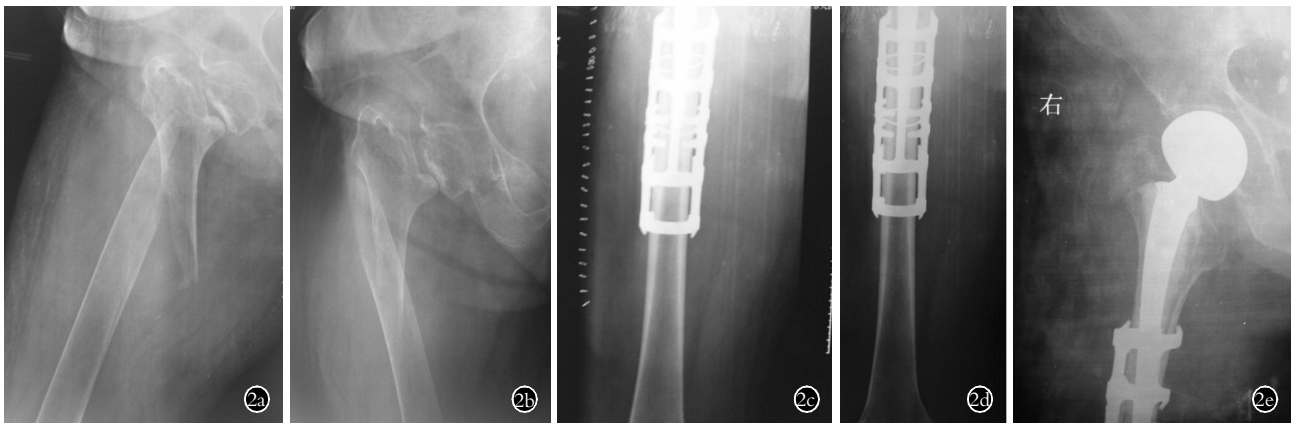


图 2 患者,男,80 岁,右股骨转子下骨折并右股骨颈陈旧性骨折 2a. 术前右侧髋关节正位 X 线片示右股骨颈陈旧性骨折 2b. 术前右侧股骨上端正位 X 线片示右侧股骨转子下骨折 2c. 术后右侧股骨上端正位 X 线片示内固定牢固 2d. 术后 1 年右侧股骨上端正位 X 线片示骨折愈合良好 2e. 术后 1 年右侧髋关节正位 X 线片示右侧髋关节假体无松动下沉

Fig.2 An 80-year-old male patient with right femoral subtrochanteric fracture combined with old femoral neck fracture 2a. Preoperative X-ray film showed the right old femoral neck fracture 2b. Preoperative AP X-ray showed the right femoral subtrochanteric fracture 2c. Postoperative AP X-ray showed the internal fixation was stable 2d. One year after operation, AP X-ray of right femur showed the fracture obtained healing well 2e. One year after operation, X-ray film showed no loosening and sinking of the right hip prosthesis

4 讨论

4.1 前外侧手术入路的优点

人工髋关节置换术目前主要的手术入路包括后外侧、前外侧两种。后外侧入路为目前主要入路,但这一入路,术后髋关节脱位的发生率相对较高,孔畅等^[4]认为发生率为 3.6%。前外侧入路保持了后路结构的完整性,减少了发生后脱位的可能。梁荣伟等^[5]认为前外侧入路较后外侧入路切口小,手术时间短,术后恢复快,术后关节功能更好,患者生活质量更高。髋关节前外侧入路又称 Smith-Petersen 入路,简称 S-P 入路,该入路利用了缝匠肌(股神经)和阔筋膜张肌(臀上神经)之间的神经界面,分离髋关节的浅层肌性结构,可以安全地显露髋关节和髌骨。该切口向近侧延伸可扩大对髌骨的显露,适用于切取移植髌骨块;向远侧延长切开阔筋膜,自股外侧肌与股直肌之间的间隙分离牵开可以显露整个股骨干。本组患者既有股骨转子下骨折同时合并股骨颈陈旧性骨折,一个切口既要满足股骨骨折复位固定取髌骨植骨又要满足髋关节人工关节置换,笔者认为选择该 S-P 入路比较合适:一方面该切口能够更加容易彻底地显露髌骨,利用 90°拉钩可较好地保护肌肉、确保准确的髌骨角度和关节中心定位,能保证假体安装的简便易行,前倾角大小容易控制,术中不易发生前倾角过大的情况;另一方面该入路便于股骨骨折复位固定而且周围无重要神经血管,坐骨神经损伤的可能性低。术后切口原位缝合对髋关节结构破坏较少。而且前外侧入路很少伤及臀中肌,可避免术后外展肌力下降、跛行。同时术后注意早期进行外展

肌功能主动锻炼,本组坚持功能锻炼半年以上,术后未发生重度跛行。笔者认为术中注意止血并自体血回输,术后放置引流管,减少了感染的机会。

4.2 治疗体会

(1)严格术前计划,摄股骨全长片,了解骨折峡部远端有无畸形。若由于骨折无法行患侧股骨模板测量,可参照对侧的股骨干测量。只有详细的术前计划,才能避免术中出现股骨干劈裂的危险,缩短手术时间、减少术中出血量和降低手术风险。(2)复位临时固定股骨,髓髓将髓腔髓固定于髓腔内,再安装髌臼双动头,最后固定骨折并安装股骨假体,必要时清理髌臼周缘增生瘢痕组织便于双动头安放;缝合伤口时需要将臀中肌止点缝回大转子止点,缝合关节囊以防关节脱位。(3)由于股骨转子下骨折的愈合较股骨转子间骨折困难,如采用骨水泥固定会造成骨水泥在骨折端的渗溢,影响骨折愈合。因此,选择全涂层生物型远近端固定股骨延长假体柄,股骨骨折处用环抱器固定防止假体柄旋转。根据骨质条件采用取同侧的髌骨或者采用同种异体骨植骨以促进骨折愈合。(4)术中采用自体血回输,由于术后引流和术前骨折本身失血等原因,在术后均需及时再补充血容量。术后床上的早期活动,股四头肌、外展肌、臀中肌功能锻炼以及术后早期下床非负重功能锻炼应在医生指导下进行。

总之,采用前外侧入路人工髋关节置换治疗股骨转子下骨折并股骨颈陈旧性骨折让老年患者获得即刻的关节功能,实现早期下地活动,避免后脱位的发生,让患者恢复生活自理能力,提高生活质量。

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背侧入路联合 Weil 截骨术治疗第 2 跖趾关节跖板损伤

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【摘要】 目的:评价背侧入路联合 Weil 截骨治疗第 2 跖趾关节跖板损伤的临床疗效。方法:自 2012 年 6 月至 2013 年 12 月,采用背侧入路联合 Weil 截骨治疗第 2 跖趾关节跖板损伤患者 5 例 8 足,平均年龄 52 岁。术前症状为第 2 跖趾关节不稳定伴跖痛症。所有患者得到随访,时间 6~12 个月。采用 AOFAS 评分及 VAS 评分评价疗效。结果:术后所有患者第 2 跖趾关节恢复稳定及跖痛缓解。所有患者 VAS 评分低于术前,AOFAS 评分高于术前。结论:应用背侧入路联合 Weil 截骨治疗第 2 跖趾关节跖板损伤可有效缓解跖底疼痛,稳定跖趾关节,降低术后半脱位率及术后关节僵硬发生率。

【关键词】 跖痛症; 跖趾关节; 外科手术

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Treatment of the injury of the plantar plate on the second metatarsophalangeal joint with dorsal approach and Weil osteotomy ZHOU Hai-bo, CHEN Lei, and LIU Cai-long. Department of Orthopaedics, the First Hospital Affiliated to Wenzhou Medical University, Wenzhou 325000, Zhenjiang, China

ABSTRACT Objective: To evaluate the clinical results of dorsal approach and Weil osteotomy in treating the injury of the plantar plate in second metatarsophalangeal joint. **Methods:** Eight feet with plantar plate tear in five cases were treated by plantar plate repairment through dorsal approach and Weil osteotomy from June 2012 to December 2013. The mean age of the patients was 52 years old. All the patients were followed up for 6 to 12 months. American Orthopaedic Foot and Ankle Society (AOFAS) and visual analogue scale (VAS) were used to evaluate the clinical effect. **Results:** The second metatarsophalangeal joint stability recovered and the pain released in all patients. Postoperative VAS was lower and AOFAS was higher than preoperative. **Conclusion:** Combined dorsal approach and Weil osteotomy can effectively release the pain of plantar plate, stabilize the metatarsophalangeal joint, decrease the incidence rate of postoperative subluxation and ankylosis in treating plantar plate tears in the second metatarsophalangeal joint.

KEYWORDS Metatarsalgia; Metatarsophalangeal joint; Surgical procedures, operative

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