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全膝关节置换术治疗类风湿性关节炎的临床效果分析 *

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摘要 目的：探讨全膝关节置换术对类风湿性关节炎的临床疗效。**方法：**回顾性分析 2012 年 10 月至 2014 年 1 月在我院接受全膝关节置换术的 80 例风湿性关节炎患者的临床资料。采用 HSS 评分标准对膝关节疼痛情况进行评价，根据膝关节活动度（ROM）评价膝关节置换术的临床效果，观察患者术后并发症的发生情况，采用 SF-36 健康量表评估患者术后的生活质量。**结果：**患者术后膝关节疼痛评分低于术前（P<0.05）；患者术后膝关节活动度高于术前，且膝关节伸直和最大屈曲状态均优于术前（P<0.05）；术后膝关节冠状面和矢状面的畸形率均低于术前，差异具有统计学意义（P<0.05）；患者术后生存质量明显高于术前，差异具有统计学意义（P＜0.01）。术后发生感染 2 例，下肢深静脉血栓 3 例，膝前区疼痛 2 例，经对症治疗均获得缓解。**结论：**全膝关节置换术治疗类风湿性关节炎具有显著的临床效果，值得推广应用。

关键词：类风湿性关节炎；全膝关节置换术；治疗效果

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Clinical Analysis of Total Knee Arthroplasty on the Treatment of Rheumatoid Arthritis*

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ABSTRACT Objective: To analyze the clinical effects of TKA for patients with RA. **Methods:** A retrospective analysis was performed about the clinical data of 80 patients (125 knees) with RA who were taken the TKA in our hospital from October 2012 to January 2014. The clinical efficacy was assessed by HSS system, the functions of knee joint was evaluated by ROM, and the quality of life was investigated by SF-36. **Results:** The postoperative HSS score was lower than before (P<0.05); The joint mobility, knee unbend and maximum buckling condition were better than before with statistically significant differences (P<0.05); The postoperative knee coronal and sagittal plane deformity rate were lower than before (P<0.05); The life quality of patients after the TKA was higher than before with statistically significant differences(P<0.01). **Conclusion:** Total knee arthroplasty has significant clinical effect on the treatment of rheumatoid arthritis and it is worthy of further clinical application.

Key words: Rheumatoid arthritis; Total knee arthroplasty; Treatment effect

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前言

类风湿关节炎(rheumatoid arthritis，RA)是以关节的炎性反应为表现的疾病，起病以手、足等小关节受累为主的对称性、持续性多关节炎，随时间延长会侵袭膝关节，表现为膝关节疼痛、软骨破坏，活动受限[1-3]。目前，人工全膝关节置换术(total knee arthroplasty，TKA)已成为膝关节类风湿关节炎的主要治疗手段[4]。相关研究表明，TKA 能有效缓解患者的膝关节疼痛、矫正膝关节畸形、恢复受累膝关节的功能，可作为膝关节 RA 的最佳治疗手段[5,6]。本研究回顾性分析了类风湿关节炎患者的临床资料，探讨 TKA 治疗晚期膝关节 RA 的临床疗效，现报道如下。

1 资料与方法

1.1 一般资料

选择 2012 年 10 月至 2014 年 1 月在我院接受全膝关节置换术的风湿性关节炎患者 80 例，包括男 35 例，女 45 例；年龄 28-79 岁，平均 54.25± 3.64 岁；术前合并高血压 22 例，糖尿病 19 例，冠心病 13 例。纳入标准：(1)根据中华医学会风湿病协会对类风湿性关节炎的诊断标准明确诊断；(2)临床资料完整；(3)身体机能对手术可耐受；(4)术前影像学证实无股骨远端或胫骨近端骨折、骨缺损、肿瘤等；(5)由同一组医师采用膝关节正中切口，经髌旁内侧入路者进行全膝关节置换术；(6)术中采用骨水泥固定假体。排除标准：(1)行膝关节翻修或初次置换采用非经髌旁内侧入路的患者；(2)膝关节内、外翻畸形 >20° 。

1.2 方法

患者取仰卧位，全身麻醉后常规充气止血带止血采用膝关

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节正中切口,经髌旁内侧入路手术,术中预防性应用抗生素。术后伤口加压包扎,常规进行镇痛、抗炎治疗,术后 24 h 拔除引流管,预防下肢深静脉血栓形成及贫血等并发症。术后第 2 d 开始使用 CPM 机进行被动屈膝锻炼及股四头肌功能锻炼等。

1.3 评价标准

采用 HSS 评分标准对患者手术前后的膝关节疼痛情况进行评分,根据膝关节活动度(ROM)评价膝关节置换术的临床效果,观察患者术后并发症的发生情况,采用 SF-36 量表评估患者的生存质量。

1.4 统计学方法

数据采用 SPSS16.0 统计学软件进行分析处理,计量资料以均数± 标准差($\bar{x}$± s)表示,评分比较采用配对 t 检验,计数资料采用 X^2 检验,以 P< 0.05 为差异有统计学意义。

2 结果

2.1 患者手术前后 HSS 评分及 ROM 比较

患者术前 HSS 评分为(9.88± 5.95),术后为(22.56± 5.57),患者术后膝关节疼痛评分明显低于术前,差异具有统计学意义(P<0.05)。患者术前 ROM 为(72.51° ± 25.76°),术后为(93.11° ± 12.07°),患者术后膝关节活动度明显高于术前,且膝关节伸直和最大屈曲状态均优于术前,差异具有统计学意义(P<0.05)。见表 1。

表 1 患者手术前后的 HSS 评分及 ROM 比较

Table 1 Comparison of HSS and ROM before and after the operation

	Before surgery	After surgery	P
HSS	9.88± 5.95	22.56± 5.57	<0.05
ROM	72.51° ± 25.76°	93.11° ± 12.07°	<0.05

2.2 患者手术前后膝关节冠状面和矢状面畸形率

患者术前膝关节冠状面畸形率为 50.4%(63/125),其中膝外翻 31 膝(27.16%),膝内翻 32 膝(19.75%);术前膝关节矢状面畸形率为 44%(55/125),均为屈曲挛缩畸形。患者术后膝关节冠状面畸形率为 24.8%(31/125),矢状面畸形率为 23.2%(29/125)。术后膝关节冠状面和矢状面的畸形率均明显低于术前,差异具有统计学意义(P<0.05)。见表 2。

表 2 患者手术前后膝关节冠状面和矢状面畸形率

Table 2 Rate of the coronal plane deformity and the sagittal plane deformity before and after the operation

	Coronal plane deformity	Sagittal plane deformity
Before operation	63(50.4%)	55(44%)
After operation	31(24.8%)	29(23.2%)
x^2/ P	X^2=43.023	P< 0.01

2.3 患者手术前后的生存质量评分比较

患者术前身体健康评分为(21.37± 4.22),心理健康评分为(40.28± 5.71);术后身体健康评分为(49.58± 6.77),心理健康评分为(58.33± 5.71)。患者术后生存质量明显高于术前,差异具有统计学意义(P< 0.01)。见表 3。

表 3 患者手术前后的生存质量评分比较

Table 3 Comparison of life quality of patients before and after the operation

	Physical health	Mental health
Before operation	21.37± 4.22	40.28± 5.71
After operation	49.58± 6.77	58.33± 5.71

2.4 术后并发症的发生情况

术后发生感染 2 例,保守治疗无效,半年后行翻修术;下肢深静脉血栓 3 例,经超声放置滤网康复出院;膝前区疼痛 2 例,经对症治疗后疼痛获得缓解。

3 讨论

HSS 评分在 TKA 手术前后关节功能的恢复及手术前后的比较仍然具有相当高的正确性,尤其是手术近期疗效的评分,能够全面的评价膝关节的运动功能。对于老年或身体其他部位病变影响整体功能的患者,评分价值会受到影响[7-9]。

有研究认为 RA 患者应接受髌骨置换,但髌骨是否需要置换的问题目前尚存在争议[10]。髌骨软骨中的抗原物质会成为长期滑膜炎的致炎因素,导致免疫介导的炎性疾病反复出现,置换髌骨截骨的同时去除部分抗原物质[11-13]。我们认为,髌骨不做常规置换,但是对于有明显膝前区疼痛、髌 - 股关节磨损严重的患者最好置换,如患者髌骨较薄,退变较轻可不置换,特别是老年患者。

深静脉血栓(deep vein thrombosis,DVT)是 TKA 术后的常见并发症之一,严重危及患者生命[14]。相关研究发现,患者行 TKA 后如不进行预防性治疗,其血栓的发生率超过 40%[15]。本研究中,发生血栓的患者经超声下放置滤网康复出院。我们分析原因认为,止血带增加了术后发生血栓的风险,但可减少术中出血,为手术提供良好的术野,可有效减少对重要软组织、血管及神经的损伤;还可为骨水泥假体与骨床的粘附提供有利条件。

TKA 术后感染的发生主要与糖尿病、肥胖、置换前后存在感染灶及切口愈合情况有关[16]。本研究中,发生感染的患者术前合并糖尿病,且术后血糖控制不佳。结果提示我们,术前应对患者进行准确全面的评估,术中严格无菌操作,预防性应用抗生素,术后及时换药等预防早期感染的发生。由于患者膝关节疼痛、畸形及屈伸活动受限,导致部分肌肉失用性萎缩,出现肌肉力量不平衡。因此,术后应加强康复锻炼[17]。

RA 不但危害患者的生理健康,而且影响其心理健康[18]。采用 SF-36 健康调查表评估患者的生活质量,发现生活量表得分低[19]。PCS 是总体量化评分表,用于评价身体方面对日常生活的影响,MCS 评价精神状态[20]。本研究中,患者 PCS 评分显著提高,表明患者膝关节功能较术前明显改善。提示我们,患者对 TKA 后膝关节功能恢复情况比较满意。

本研究中,患者术后膝关节疼痛评分、膝关节冠状面和矢状面的畸形率均低于术前,差异具有统计学意义(P<0.05);而

术后膝关节活动度、膝关节伸直和最大屈曲状态及均生存质量均优于术前，差异具有统计学意义（P＜0.01）。结果说明，全膝关节置换术治疗类风湿性关节炎具有显著的临床效果，值得推广应用。

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