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·临床研究·

关节镜下肩袖修复术治疗肩袖损伤的早期临床疗效观察

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[摘 要] **目的** 观察关节镜下肩袖修复术治疗军事训练伤致肩袖损伤的早期临床效果。**方法** 回顾性分析北部战区总医院骨科2016年5月至2018年4月收治的40例肩袖损伤行关节镜下肩袖修复术军人患者的临床资料。统计分析患者术前、术后1个月、术后3个月美国肩肘外科(ASES)评分、VAS疼痛评分、Constant-Murley评分、UCLA评分情况。**结果** ASES评分由术前(49.26±9.34)分到术后1个月(77.14±6.07)分、术后3个月(85.14±6.07)分;VAS评分由术前(6.1±1.3)分到术后1个月(1.5±0.5)分、术后3个月(1.0±0.4)分;Constant-Murley评分由术前(45.4±7.5)分到术后1个月(79.4±5.4)分、术后3个月(86.4±6.4)分;UCLA评分由术前(12.1±3.7)分到术后1个月(31.3±1.4)分、术后3个月(34.2±1.5)分,术后1个月及术后3个月各项评分均较术前明显改善,差异具有统计学意义($P<0.05$)。**结论** 关节镜下肩袖修复术治疗军事训练伤致肩袖损伤的早期临床效果良好。

[关键词] 关节镜;肩袖修复;军事训练伤;肩袖损伤;肩峰成形术;小切口;临床效果
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Early clinical observation of arthroscopic repair for treatment of rotator cuff injury

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Abstract: Objective To observe the early clinical effect of arthroscopic rotator cuff repair for treatment of rotator cuff injury caused by military training. **Methods** A retrospective analysis was made on the clinical data of 40 patients of rotator cuff injury who were admitted to the department of orthopedics of general hospital of the northern theater command from May 2016 to April 2018. Analyzed the shoulder joint pain and function scores of the patients before surgery,1 month and 3 months after the operation with the American shoulder and elbow surgeons (ASES), visual analogue scale (VAS),Constant-Murley and UCLA score. **Results** ASES score ranged from (49.26±9.34) before surgery to (77.14±6.07) 1 month after surgery and (85.14±6.07) 3 months after surgery; VAS score ranged from (6.1±1.3) preoperatively to (1.5±0.5) 1 month after surgery and (1.0±0.4) 3 months after surgery; Constant-Murley score ranged from (45.4±7.5) before surgery to (79.4±5.4) 1 month after surgery and (86.4±6.4) 3 months after surgery; UCLA scores were significantly improved from (12.1±3.7) before surgery to (31.3±1.4) 1 month after surgery and (34.2±1.5) 3 months after surgery,with statistically significant differences ($P<0.05$). **Conclusion** Arthroscopic rotator cuff repair is effective in the early stage of rotator cuff injury caused by military training.

Keywords: arthroscopy;rotator cuff repair;military training injury;rotator cuff injury;acromioplasty of shoulder;small incision;treatment effect

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肩袖损伤是成人肩关节障碍主要病因,大多发生于中老年患者,源于常年的肩袖磨损退变并由外伤诱发所致[1-4]。其治疗方法主要为关节镜下肩袖修复术,因其微创、利于术后快速康复目前已成为临床主流的肩袖损伤治疗方式[5-7]。但本研究组在临床工作中发现,军事训练伤所致的肩袖损伤,患者大多为年轻战士,目前国内外对此类患者肩袖损伤尚缺乏报道[8]。本次研究将针对这类特殊群体,探讨关节镜下肩袖修复术于军事训练伤致肩袖损伤的早期临床疗效,从而指导这类特殊肩袖损伤群体的诊疗工作。

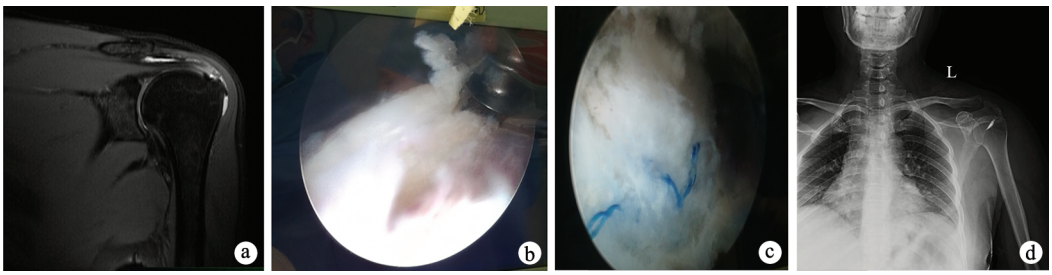
1 资料与方法

1.1 临床资料

我院2016年5月至2018年4月收治40例肩袖损伤的军人,全部为男性战士,平均年龄(34.3±5.8)岁,均因肩关节疼痛伴活动受限入院,磁共振及查体诊断为肩袖损伤(图1a)。术前行血常规、心电图、磁共振、肩关节CT、冈上肌出口位等检查,排除手术禁忌证。入选标准:40例患者均因军事训练伤后行手术治疗,均经长期保守治疗后肩关节疼痛症状持续存在,均有长期训练史,查体及影像学检查支持肩袖损伤诊断,关节镜术中见明显肩袖损伤并行肩袖修复术。

1.2 方法

全身麻醉后,患者取健侧侧卧位,触摸肩关节骨性标志(肩峰、锁骨远端、喙突、肩胛冈)并标记。常规消毒术区皮肤,铺单,连接关节镜器械、导水线、导水管。自肩关节镜后入路处以腰穿针于关节腔内注入生理盐水25 mL以扩张关节腔,后入路位于肩峰后外角下方2 cm、内侧1.5 cm"软点"处,长约1 cm;直钳穿刺进入关节腔后改钝头穿刺锥进入关节腔,确认后开启水管扩充关节,镜头置入进行关节腔内检查:可见肩袖间隙滑膜充血、增生明显,盂唇完整性好,二头肌腱长头腱、肩胛下肌腱等结构完好,肱骨头软骨表面缺损。随即将关节镜于后方入路移入肩峰下间隙,可见肩峰下间隙内滑膜增生明显、充血水肿,再分别使用穿刺针建立前外侧、外侧入路,皮肤切口位于肩峰前外侧角以远2.5 cm,切口约1 cm。置入刨刀、射频电刀清理肩峰下滑膜,并进行肩峰成形术。随即应用探针探查冈上肌腱情况,可探及冈上肌肌腱明显撕裂,撕裂情况符合缝合指征,使用单排技术于破口处置入带线锚钉,将撕裂的肩袖表面予以缝合(图1b、c)。仔细止血,常规冲洗术区清点纱布、器械无误,切口内未置引流,全层缝合切口,无菌敷料包扎,术毕,患肢外展支具外固定。术后常规给予消肿止痛等对症药物治疗,并复查肩关节磁共振、X射线及三维CT(图1d)。嘱患者佩戴肩关节支具的同时早期进行肩关节适度功能锻炼,并嘱患者定期返院复查。



a:术前磁共振;b:术中置入锚钉;c:术中缝合肩袖表面;d:术后复查X射线片

图1 患者临床资料

1.3 功能评估

采用ASES评分、UCLA评分、Constant-Murley评分、VAS疼痛评分分析患者肩关节疼痛及功能状况[8-9]。

1.4 统计学分析

采用SPSS 22.0软件分析数据,术前、术后1个月、术后3个月肩关节疼痛及功能状况评分等计量资料以均数±标准差($\bar{x}\pm s$)表示,采用t检验,$P<0.05$为差异有统计学意义。

2 结果

患者术后均未出现神经血管受损,术后1个月及术后3个月ASES、VAS、Constant-Murley、UCLA评分均较术前改善明显,差异具有统计学意义($P<0.05$),见表1。

表1 患者手术前后各项评分($\bar{x}\pm s$,分)

时间	ASES	VAS	Constant-Murley	UCLA
术前	49.26±9.34	6.1±1.3	45.4±7.5	12.1±3.7
术后1个月	77.14±6.07*	1.5±0.5*	79.4±5.4*	31.3±1.4*
术后3个月	85.14±6.07*	1.0±0.4*	86.4±6.4*	34.2±1.5*

*:与术前比较,$P<0.05$

3 讨论

随着军事训练任务的加重,部分长期剧烈训练的战士出现肩关节疼痛伴活动受限症状,经肩关节磁共振及肩关节检查提示肩袖损伤[9-11]。早期仅给予保守药物治疗及理疗,部分战士症状改善不明显。Ya-

manaka 等[12]及 Strauss 等[13]指出这种年轻人的肩袖损伤通常不会自愈,需行肩袖修复手术治疗。目前关于关节镜下肩袖修复手术的研究文献大多是针对中老年退行性肩袖损伤,而关于军事训练伤致肩袖损伤的研究尚少,有学者指出年纪轻且因非退行性因素导致肩袖损伤的患者行关节镜下肩袖修复手术效果明显[14-16]。

肩袖损伤的战士均具有肩关节训练损伤病史、非退行性因素导致肩袖损伤、年纪轻等特点。有研究表明,年轻患者腱骨愈合能力明显优于老年人,可以考虑行肩关节镜下肩袖修复术从而明显改善肩关节症状,早期恢复训练[17-19]。此类患者术前检查往往提示肩峰增生不明显,肩袖损伤常合并肩关节外伤病史,肩关节磁共振多提示肩袖损伤局限,区别于退行性变的肩袖损伤,关节镜术中与中老年肩袖损伤患者相似,均可视肩峰撞击情况决定是否行肩峰减压,但肩峰撞击多不明显,较少行肩峰减压。损伤的肩袖组织往往没有明显的退变回缩,关节镜术中可见肩袖撕裂局限,明显小于老年患者,撕裂多局限于滑膜层,较少为肌腱全层撕裂,撕裂的肌腱往往血运比较丰富[20]。术中缝合肩袖以撕裂肩袖破口为中心置入带线锚钉,置入点尽量避免损伤腱性肌腱组织,尽量使用单个锚钉局部修复缝合破口,减少因较多置钉所带来的手术创伤问题。而在术后康复方面军人往往早期能积极地配合进行肩关节康复锻炼,在随访中早期即可获得良好的疗效。

研究显示,肩关节镜下肩袖修复术治疗军事训练伤致肩袖损伤早期疗效显著,可让广大官兵远离肩关节疼痛困扰,早期恢复训练。肩关节镜下肩袖修复术可以在军事训练伤致肩袖损伤的临床工作中广泛推广。

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