

中西医结合治疗膝关节粘连性强直的研究进展

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摘要: 膝关节粘连性强直是膝关节或膝关节周围创伤或术后因制动时间长、缺少功能锻炼、不正确的功能锻炼及不恰当的内固定等引起的严重并发症, 如今已是临床上一种常见病与多发病, 严重影响患者的日常生活及工作, 患者不仅痛苦, 且给家庭和社会造成很大影响。因此, 近年来国内外学者对该病的研究十分重视, 并且取得了很大的进步。同时经过众多临床工作者的不懈努力, 在总结传统治疗方法的基础上, 开创了一些更为有效、安全的治疗方法。笔者将近几年内治疗粘连性膝关节强直的中西医方法作一阐述, 望能够指导更多的临床工作者灵活运用, 最大限度地减轻患者的痛苦, 为社会带来更多的福音。

关键词: 膝关节强直; 中医; 西医; 联合治疗

Research progress on integrative medicine in the treatment of knee joint conglutination stiffness

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Abstract: Knee joint adhesion and rigid are serious complications following knee or knee joint peripheral trauma or surgery due to prolonged joint immobilization, lack of exercise, incorrect functional exercise or improper internal fixation. It is a common and frequently-occurring disease in clinic, which can seriously affect the patient's daily life and work, cause pain, and impact the patients' families and society. Thus, in recent years, research on the treatment of this disease received great attention internationally, and great progress had been made. Through the unremitting efforts of the many clinical workers, on the basis of integrating traditional treatment methods, a number of more effective and safe treatment methods were developed. The authors of this paper summarized the progress in traditional Chinese medicine and Western medicine on the treatment of adhesive knee joint stiffness in recent years, with the aim to guide more clinical workers to use these methods flexibly, to minimize the suffering of patients, and to reduce the burden of the society.

Key words: Knee stiffness; Traditional Chinese medicine; Western medicine; Integrative therapy

1 膝关节强直的病理因素

1.1 中医病因

传统中医认为, 筋主束骨而利关节, 膝为筋之会。膝关节或关节周围创伤或骨折后, 导致局部气滞血瘀, 气血运行不畅, 筋失柔韧, 筋挛拘急, 痰瘀互结, 阻滞经络, 筋脉闭痛, 则关节及周围组织失去气血津液濡养而形成粘连, 导致膝关节粘连性强

直^[1-2]。或受伤后患者膝部较长的制动及缺少适宜的功能康复锻炼等因素, 创伤组织得不到及时有效的气血津液供应, 逐渐失去活性, 最终导致粘连, 发生软组织机化, 造成广泛的组织粘连^[3]。故祖国传统医学认为: “筋急之原, 由血脉不荣于筋之故也^[4]。”

1.2 西医病因

目前西医学认为膝关节粘连性僵硬的主要原因包括关节外病变及关节内病变两种。关节外病变因外伤或者术后所引起的股中间肌, 股直肌和其扩张部的机化、纤维化、挛缩及粘连, 导致膝关节的滑动受限制。膝关节长时间制动未进行股四头肌及膝关

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节屈伸活动亦是导致膝关节及关节周围组织粘连挛缩的重要因素^[5]。其中粘连包括股中间肌粘连、股四头肌及其肌腱之间粘连、髌骨支持带发生挛缩后与股骨髌粘连、膝关节后关节囊粘连及髌上囊之间的粘连^[6]。长时间的关节粘连常使肌肉的伸缩性减弱,加剧关节囊和韧带纤维化与挛缩而使关节僵硬恶化;关节内病变主要包括创伤后关节内积血,血肿机化后造成髌上囊粘连,继则引起髌股关节和胫股关节粘连变性;膝关节或关节周围的创伤或手术后患肢长时间不负重,关节软骨未得到正常的生理刺激而发生萎缩,患肢组织间隙中出现纤维蛋白沉积和浆液纤维渗出,造成关节间隙明显变窄,关节内纤维粘连;另外,创伤或手术后的长期制动,使关节囊逐渐萎缩,周围肌腱紧张亦是促使远期废用性膝关节强直的原因之一。

2 治疗方法

2.1 中医治疗

中医认为,组织广泛粘连的病程日久后则导致肝肾不足、气血失活、经脉失养,或正气虚弱易感风寒湿邪,脉络阻塞不通,不通则痛。因此,通过中药熏洗,能使毛孔开启,引经药物通过皮肤、毛窍、腧穴等渗透至局部经络,使人体玄府洞开,达到舒筋活络、消肿止痛、缓解肌肉与韧带紧张、促进关节积液吸收、通利关节的作用,符合“瘀去则新生,络通则痛止”理论^[7-8]。另外,通过推拿按摩能有效促进血液循环,加速瘀血的消散吸收,减少组织粘连及瘢痕组织形成,故能恢复患膝关节的屈伸活动,但手法要求柔和深透,以患膝局部疼痛域为准,随时调整手法力度,循序渐进地加大患膝关节的活动范围^[9]。王雪莹^[10]报道,通过中药熏洗(防风、牛膝、透骨草、川芎、荆芥、红花、独活、当归)配合按摩对 36 例膝关节强直患者进行治疗。结果显示,所有患者膝关节功能均有明显改善。临床痊愈 20 例,显效 9 例,有效 7 例,总有效率 100%。陈发红等^[10]通过中药外洗(木瓜、三棱、五加皮、莪术、王不留行、刘寄奴、秦艽、红花、牛膝、炙川乌、钩藤、炙草乌、苏木、海桐皮、刘寄奴、甘草)、中医理伤手法及持续被动运动(continuous passive motion, CPM) 机锻炼三步疗法治疗 24 例膝关节强直,优良率以 80% 得出明显的优势,强调此三法循序进行,互补不足能发挥很好的治疗作用。

2.2 手术治疗

彭昊等^[11]采用改良 Thompson 术治疗 46 例创

伤性膝关节伸直强直患者优良率达到 95.7%,其优点主要是避免做股四头肌肌腱倒 V-Y 成形,加强了股四头肌肌力,并且本手术对于软组织损伤程度明显小于传统的股四头肌成形术。陈旭等^[12]运用改良膝关节粘连松解结合透明质酸钠关节内注射的方法治疗 22 例膝关节粘连性强直患者取得了较好的疗效。其主要采用大腿至膝关节的前外侧切口,这样既松解了关节内粘连又使取内固定和膝关节粘连松解 2 种手术同时进行。强调术中关节腔及其周围的肌间隙注射透明质酸钠,因其高度的弹性和润滑作用减少了纤维蛋白沉积及渗出,且能减轻局部炎症反应和炎细胞浸润,有利于膝关节的屈伸活动。另外其与糖蛋白形成聚合体,对软骨修复有一定疗效。林伟等^[15]对 26 例膝关节僵硬患者采用关节镜下粘连松解结合透明质酸钠注射治疗,随访 12~24 个月,膝关节屈曲度均达 100° 以上,较术前平均增加 75°。表明关节镜下粘连松解相对传统切开松解术具有创伤小、并发症少、术后能早期功能锻炼及疼痛轻等优点。应行等^[13]发现,既能同时松解关节内外的粘连,又创伤较股四头肌成形术减少的方法是双切口松解术(髌外侧弧形切口和髌内侧斜形切口),比传统的股四头肌成形术和关节镜下微创松解术有更好的疗效。张连平^[14]报道,利用关节松解、股四头肌成形术治疗膝关节强直 43 例,结果较术前平均进步 98.7°。万明智等^[15]和段永敏等^[16]报道通过小针刀松解膝关节粘连的组织恢复膝关节的屈伸功能,效果显著。此法强调针刀操作要轻巧准确,深度适宜,其方向要与神经、血管、肌纤维方向平行,手法主要以纵向切割、横行摆动为主。具有创伤少、出血少、疼痛轻、感染少、费用低、术后无瘢痕等优点,患者易接受。但要求术者熟练掌握解剖层次及具备对粘连部位的准确定位能力与精湛的手法。

2.3 联合治疗

卢向东^[17]利用中药(鸡血藤、桑枝、姜黄、伸筋草、麻黄、牙皂、威灵仙、透骨草、当归)熏洗配合手术松解术治疗膝关节强直 35 例与单纯西医对症治疗膝关节强直 36 例作疗效对比,结果发现观察组优良率为 85.7%,明显优于对照组,证明中西医结合治疗确实优于单纯手术治疗。杨宗胜等^[18]采用针刀闭合性手术结合膝关节关节松动术治疗膝关节强直 15 例,优良率达 87%,此类方法既有利于对中老年膝关节强直患者的治疗,又避免了开放性手术创伤大等缺点。刘光通^[19]运用膝关节手术松解粘连

配合中药(桑枝、伸筋草、没药、海桐皮、乳香、威灵仙、透骨草、独活、血竭、牛膝)熏洗 70 例膝关节强直患者,结果有效率占 82.85%,使患膝关节屈伸活动得以恢复,取得满意疗效。王振华等^[20]亦报道对各 40 例膝关节强直患者采用中药(伸筋草、威灵仙、桑桂、独活、透骨草、乳香、没药、海桐皮、牛膝、独活)熏洗配合膝关节手术松解术与单纯手术松解术作疗效对比,结果发现中西医结合治疗效果显著,手术松解联合中药熏蒸可以明显改善患膝关节周围血液循环,增加组织活性、减少局部瘢痕形成,膝关节屈伸功能得以更快恢复。谢南方^[21]报道,采用膝关节双侧切口松解粘连术配合术后髌骨牵引治疗膝关节僵直 21 例,15 个月后随访,结果未出现股四头肌坏死、髌韧带断裂、髌前及周围皮肤坏死等并发症,术后髌骨牵引最大的优点是使股四头肌松弛,有效防止股四头肌及大腿外侧皮肤切口的再粘连,且可以防止皮肤坏死的发生。邢勇^[22]与吴锦秋等^[23]均采用中药(前者:忍冬藤、细辛、生草乌、桉南香、海桐皮、乳香、苏木、蕲艾叶、刘寄奴、西红花、威灵仙、海桐皮、川椒、生川乌、桂枝、防风、怀牛膝、透骨草;后者:生川乌、透骨草、桂枝、西红花、蕲艾叶、怀牛膝、桉南香、乳香、防风、威灵仙、生草乌、刘寄奴、忍冬藤、川椒、苏木、细辛)熏洗联合关节镜与单纯用关节镜治疗膝关节强直患者作临床疗效对比,其优良率分别达 92% 和 91.67%,证明联合治疗有明显的优势,可有效改善膝关节屈伸功能并促进患者术后较快的康复。关节镜手术属于微创技术,具有创伤小、感染少、出血少、恢复快、并发症少以及手术瘢痕小等优点,弥补了传统膝关节松解术的众多不足,降低了因再次切开手术治疗而出现术后软组织粘连的风险^[24]。尹玮^[1]通过中药内服(僵蚕、白芍、红花、当归、白芥子、川芎、桃仁),中药(透骨草、艾叶、伸筋草、防风、羌活)熏洗联合小针刀治疗与单纯中药内服、中药口服治疗作疗效对比,观察两组患者发现联合治疗的有效率可达到 95.5%,证明小针刀联合中药更易疏通膝关节粘连组织,早期恢复关节屈伸活动,具有较好的临床疗效^[25]。黄淑明等^[26]采用关节镜联合小切口粘连松解术治疗伸直性膝关节僵硬,具有并发症少,创伤小等优势。秦练等^[27]研究结果显示,采用关节镜下关节松解联合中药(当归、海桐皮、水蛭、乳香、防风、川芎、没药、川椒、红花、威灵仙、白芷、制马钱子)熏洗及针灸治疗综合治疗膝关节粘连 24 例患者,随访平均 6 个月,治疗后膝关节平均活动度 108°,平均增加 71°。提示采

用中西医结合多种方法配合综合治疗膝关节粘连,能在临床上达到较为满意的疗效。

3 讨论

临床研究证实,无论是中药熏洗、按摩、针灸治疗,还是针刀、关节镜、切开手术治疗,最终疗效与术后康复训练密切相关。所有治疗的最终目的就是最大限度地恢复膝关节的功能,提高患者生活质量^[28]。如果仅仅重视治疗而忽视膝关节功能康复训练,那就失去了治疗的意义。Schiavone 等^[29]认为早期指导患者功能锻炼可以改善患膝局部血液循环、加速代谢过程,预防组织粘连和挛缩,促进渗出物吸收,改善膝关节活动度,提高临床疗效。采取被动运动与主动运动相结合的方法,术后早期通过持续关节被动活动,可以促进膝部血液循环,防止出现新的粘连并促进关节滑液向关节软骨及其周围浸透、扩散,防止下肢静脉血栓形成和栓塞及软骨组织与骨骼修复^[30-31],注意每日行机体功能锻炼的过程中要在患者能忍受痛域的情况下逐渐增加患膝的活动范围,宜缓慢、柔和、循序渐进,严格禁止强有力的被动活动^[32-33]。但单纯被动功能锻炼不能代替主动功能锻炼,股四头肌的肌力恢复必须通过主动功能锻炼来实现,强调以主动运动为主,被动运动为辅^[34]。因此,中西医结合治疗后早期正确的进行康复功能锻炼并劳逸结合,持之以恒,以最大限度屈伸膝关节是恢复膝关节功能及避免发生再粘连的关键^[35]。鲁道海等^[36]报道运用神经肌肉关节促进法治疗膝关节粘连患者,主要利用抗阻和先被动后主动的原理,此方法可减轻患者疼痛,增强患膝肌力,弥补了本体感觉神经肌肉促进法的缺点,其康复疗效显著^[37]。宋伟等^[38]研究结果发现以关节持续被动活动为原理的 CPM 机能有效防止关节及关节周围粘连,减轻疼痛、肿胀,增加关节活动范围,最大限度的恢复关节功能。

综上所述,开放性手术,无法避免创伤大、易感染、疤痕、再粘连挛缩的缺点,另外由于患者难以承受术后康复功能锻炼带来的剧痛而放弃锻炼,造成手术松解处再次粘连,手术效果不理想。关节镜微创松解治疗膝关节僵直患者,虽手术切口小、时间短、疼痛轻及术后并发症少,能进行早期功能康复训练。但主要适用于关节内粘连所致膝关节僵直患者,其临床疗效理想。而双切口松解术不仅能治疗关节内粘连,同样也能治疗严重的关节外粘连,可以彻底松解关节内外的粘连,并且手术创伤较传统的

股四头肌成形术明显减小,具有明显的临床优势。针刀治疗是将中医的针灸疗法联合西医的手术,亦属于微创技术,具有疼痛轻微、早锻炼、感染少、花费少、易接受等优点,近些年广泛适用于临床,效果满意。且近年来不少学者对股四头肌成形术进行了改良使其逐渐成熟具有一定的临床优势。实践证明:根据膝关节强直的时间与部位不同,应采取不同方法治疗。早期利用手法松解,采用保守方法配合中医药的治疗方法,其效果明显;中期即病程较长、保守治疗效果不明显者可行针刀治疗、关节镜下松解术配合中医药治疗等;晚期采用中医中药熏洗、按摩、针灸、牵引治疗联合改良股四头肌成形术、双切口松解术、针刀治疗等方法治疗膝关节强直,可以使粘连点完全松解,促进患者术后康复,有效防止膝关节及关节周围软组织二次粘连、挛缩,达到最佳治疗效果,值得在临床上推广和应用。

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