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文献综述 REVIEW

复杂性肛瘘保留括约肌手术的治疗进展

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■背景资料
复杂性肛瘘的治疗是临床的重点和难点, 保留括约肌手术得到广泛应用. 引流挂线法、推进皮瓣法、肛瘘栓等能较好地保护肛门括约肌, 但治愈率较低; 经括约肌间瘘管结扎术能较好地解决保护肛门功能和提高治愈率之间的矛盾.

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Sphincter-saving surgery for complex anal fistula

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Abstract
At present, the treatments for complex anal fistula are often associated with high recurrence and insufficient protection of anal function. Fistulotomy and cutting seton often lead to damage to the anal sphincters, increasing the risk of incontinence. Recently, they have been replaced gradually by sphincter-saving measures, such as advancement flap, anal fistula plug and ligation of intersphincteric fistula tract. In this article, we will review the recent advances in sphincter-saving surgical treatment of complex anal fistula.

Key Words: Anal fistula; Sphincter-saving surgery; Treatment

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摘要
目前复杂性肛瘘的治疗普遍存在复发率高、肛门功能保护不足的现状. 传统的肛瘘切开术和切割挂线术损伤肛门括约肌, 易致肛门失禁, 已逐渐被保留括约肌术式, 如推移瓣、肛瘘栓、经括约肌间瘘管结扎术等所取代. 本文将对复杂性肛瘘保留括约肌手术治疗进展作一综述.

关键词: 肛瘘; 保留括约肌手术; 治疗

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0 引言
肛瘘是肛管直肠周围间隙发生化脓性感染, 自然破溃后形成的一种感染性疾病, 是一种常见的较为复杂的外科感染. 复杂性肛瘘涉及大部分肛门括约肌, 其复发与损伤肛门控制功能的危险性增加, 临床难以处理. 肛门括约肌损伤是导致肛门失禁的主要原因, 故肛瘘的治疗原则是在维护括约肌功能的前提下治愈肛瘘. 复杂性肛瘘保留括约肌手术仍是未来探索和研究的重点. 以下就几种复杂性肛瘘保留括约肌手术方法作一综述.

1 引流挂线
挂线主要分为切割挂线和引流挂线, 主要作用为引流、标志、异物刺激和慢性勒割. 切割挂线曾经是治疗复杂性肛瘘的主要方法, 但研究表明其术后肛门失禁率仍高达34%-63%, 且由于橡皮筋对括约肌的慢性勒割作用, 术后患者疼痛剧烈, 已逐渐被引流挂线取代[1]. 引流挂线形成瘘管的持续引流, 从而预防脓肿的形成[2]. 虽然引流挂线完全保留了括约肌, 减少肛门失禁[3], 但研究结果显示其治疗复杂性肛瘘的远期复发率为20%-80%[1-9]. Pinedo等[10]采用改良引流挂线: 切开内括约肌、开放肌间隙、游离外括约肌、原发瘘管挂线引流, 治疗复杂性肛瘘18例, 随访16 mo无复发, 5.6%肛门失禁, 与Eitan等[9]报道的5%一致. 陆金根等[12]采用隧道式支

管拖线术治疗复杂性肛瘘, 有效地保护了肛门直肠正常的形态和功能的完整, 保持肛管外括约肌和内括约肌反射的完整, 以及最大限度地减少瘢痕组织引起的肛管缺损, 从而避免了肛门失禁、肛门狭窄及肛门畸形等常见并发症. 其一次性治愈率在92%以上, 平均愈合时间为22 d[11,13]. 对于克罗恩肛瘘及艾滋病伴发肛瘘患者可采用长期引流挂线, 以限制症状和保护肛门功能.

2 直肠黏膜瓣/肛周皮瓣推移闭合内口

直肠黏膜瓣推移术是治疗复杂性肛瘘的常用方法之一, 具体操作[14]: 麻醉后探查瘘管的行径及内口, 外口作椭圆形切除, 瘘管作隧道式挖除. 自内口下方约0.5 cm作半月形或梯形舌状黏膜瓣, 黏膜瓣应包括黏膜、黏膜下层及部分环肌层, 基底部为顶部宽度的两倍, 以保证血供和无张力. 切除黏膜瓣下缘内口部分, 剩余黏膜瓣下拉与肛缘皮肤间断缝合, 间断缝合修补内括约肌. 外口开放引流. Uribe等[15]报道应用直肠黏膜瓣推移术治疗肛瘘60例, 随访43.8 mo, 复发率7.1%, 12.5%轻微肛门失禁, 9%严重肛门失禁. Mitalas等[16]对直肠黏膜瓣推移术治疗失败的患者再次行推移黏膜瓣手术, 治愈率达69%, 且二次手术没有增加肛门功能的损害. van der Hagen等[17]的研究结果显示直肠黏膜瓣推移术的远期复发率63%.

肛周皮瓣推移术与直肠黏膜瓣推移术类似, 主要区别在于肛周皮瓣推移术以肛周皮肤为瓣, 包括皮下脂肪及部分肛管内括约肌层, 皮瓣上拉无张力缝闭内口. Jun等[18]用肛周皮瓣推移术治疗高位肛瘘40例, 治愈率95%, 与Hossack等[19]报道一致, 愈合时间为2-3 wk, 无肛门失禁[20]. Zimmerman等[21]报道肛周皮瓣推移术治疗肛瘘的治愈率为78%, 30%患者出现肛门功能减退. 该法适用于内口在齿线的高位经括约肌肛瘘和括约肌上肛瘘, 对女性前侧肛瘘也适用, 治疗肠道炎症控制较好的克罗恩病肛瘘的成功率70%-75%, 对失败的患者可以再次手术治疗[22,23]. Hossack等[19]认为肛周皮瓣推移闭合内口可显著提高患者生活质量, 并能改善肛门失禁症状.

直肠黏膜瓣推移术和肛周皮瓣推移术治疗复杂性肛瘘时清除感染灶, 闭合内口, 不损伤外括约肌, 失禁风险低, 创面小, 避免锁眼样畸形, 可重复治疗[24]. 手术成功的关键在于保证黏膜瓣或皮瓣的血供, 血供不足是失败的主要原因. 两者相比, 肛周皮瓣推移术具有更多的优点: (1)不会造成直肠黏膜、黏膜下或肌层缺损, 避免形成感染性死腔, 损伤皮瓣; (2)延展性好, 避免张力缝合; (3)成功率更高, 操作更容易[25].

3 纤维蛋白胶封闭/肛瘘栓

纤维蛋白胶封闭治疗肛瘘与传统的肛瘘手术相比, 最大的优点在于无括约肌损伤, 不影响肛门功能. 具体操作前先切除感染的肛腺和内口, 予挂线引流4-6 wk, 待瘘管炎症消退, 挂线皮筋周围的肉芽得以充填, 去除挂线皮筋, 搔刮管道, 测出瘘管长度, 用3-0可吸收缝线缝闭内口. 按测量长度自外口导入注射纤维蛋白胶的细管, 注入纤维蛋白胶, 边注射边后退, 直到封闭外口[14]. Sentovich初期报道纤维蛋白胶治疗肛瘘治愈率为85%[26], 他们的长期研究发现治愈率下降到69%[27]. Zmora等[28]用该法治疗肛瘘60例, 随访6 mo, 治愈率为53%, 与Witte等[29]和de Parades等[30]报道的治愈率55%和50%基本相符. 尽管纤维蛋白胶治疗肛瘘有一定效果, 但随着时间的推移, 远期疗效下降至16%[31,32]. 纤维蛋白胶治疗肛瘘失败的主要原因是纤维蛋白胶的脱出及由于炎性组织不完全清除导致的肛瘘复发[33].

肛瘘栓(anal fistula plug, AFP)是从猪小肠黏膜下提炼加工出的可吸收生物材料, 结构和人类细胞外基质类似, 能刺激并作为支架帮助损伤部位的组织修复和重建. 方法如下[34]: 检查明确瘘管的内、外口及管道的走向和支管, 挂线引流8 wk, 使肛瘘及其支管得到充分引流, 炎症消退. 患者麻醉后, 予双氧水冲洗瘘管, 搔刮瘘管, 并切除外口. AFP从内口插入瘘管, 直到其牢牢固定住为止, 将AFP与肛门括约肌间断缝合固定, 并关闭内口. 对外口周围多余的AFP进行修剪, AFP无须与外口固定, 外口敞开以便引流. AFP成功的关键在于有效控制瘘管炎症, 炎性组织会成为AFP作为支架刺激损伤组织修复和重建的障碍, 导致治疗失败. Schwandner等[34]用AFP治疗经括约肌肛瘘60例, 治愈率62%, 与其他报道结果相符[35], 并且没有肛门失禁的风险. Johnson等[36]将AFP与纤维蛋白胶疗效进行比较, 显示AFP有较高的治愈率. 25例复杂性肛瘘, 纤维蛋白胶组10例, AFP组15例, 随访13.8 wk, 纤维蛋白胶组治愈率20%, AFP组治愈率86.7%. 然而, 近期研究显示AFP远期治愈率在15%-40%[37-39]. AFP费用高, 且其有效性还有待长期研究, 术后饮食因素是否会导致治疗失败

■相关报道
Rojanasakul等详细介绍了经括约肌间瘘管结扎术的手术方法, 主要适应证为经括约肌瘘和括约肌上瘘, 短期治愈率94.4%, 不损伤肛门功能. Aboulian等报道了经括约肌间瘘管结扎术的早期研究结果, 治愈率68%, 无肛门失禁, 对复发瘘管的类型及二次治疗方法均有详细描述.

■创新盘点
经括约肌间瘘管结扎术目前在国内尚未见临床应用报道, 本文系统地介绍了其操作方法、适应证、治愈率及对肛门功能的影响, 为临床保留括约肌手术治疗复杂性肛瘘提供思路及方法.

■应用要点
本文为临床应用保留括约肌手术治疗复杂性肛瘘提供总体思路及方法, 并为解决复杂性肛瘘临床治愈率与肛门功能保护之间的矛盾提供新的方法.

也有待进一步研究[40].

4 经括约肌间瘘管结扎术

经括约肌间瘘管结扎术(ligation of intersphincteric fistula tract, LIFT)由泰国Rojanasakul最早提出[41], 与Matos等[42]描述的方法有所不同. LIFT主要在括约肌间结扎并切断瘘管, 刮除瘘管壁感染组织; Matos方法是切除括约肌间的瘘管, 再缝合肛门内括约肌开口, 切除瘘管并修补. Matos法在切除瘘管时易损伤肛门外括约肌, 这是LIFT更安全, 疗效更好的区别所在[43]. 与传统的肛瘘切开术、切割挂线术等相比, LIFT不切断肛门括约肌, 术后肛门功能完好无损. 具体方法如下.

患者术前常规肠道准备, 麻醉后取俯卧折刀位. 用双氧水明确肛瘘内、外口, 探针探清瘘管走向, 在探针引导下于括约肌间沟处皮肤作1.5-2.0 cm弧形切口, 在括约肌之间分离出瘘管, 将靠近内外括约肌的两侧分别缝扎并切断瘘管, 用双氧水反复注射试验, 直至确认瘘管彻底被结扎. 断端至外口段的瘘管用刮匙搔刮, 外口敞开引流. 术后予环丙沙星、甲硝唑等抗生素抗炎治疗, 患者便后需及时清洗创面[43]. 肛瘘无法自愈的原因主要为粪便残渣由内口进入瘘管引起感染, 括约肌间的瘘管由于内、外括约肌的收缩而受到压迫, 引流不畅, 成为反复感染灶[41]. LIFT基于闭合内口、清除感染的肛腺, 主要适用于经括约肌瘘和括约肌上瘘, 也可以推广到几乎所有的肛瘘, 但早期尚未完全形成瘘管的患者不适用[43]. Rojanasakul等[41]用LIFT治疗经括约肌肛瘘18例, 治愈率94.4%, 平均治愈时间4 wk, 无肛门失禁, 长期是否复发还有待进一步研究, 但是他们对此持乐观态度. Shanwani等[44]报道用LIFT治疗复杂性肛瘘45例, 治愈率82.2%, 无肛门失禁, 术后3-8 mo复发率为17.7%. Aboulian等[46]最新报道LIFT治疗经括约肌肛瘘25例, 治愈率68%, 无肛门失禁; 失败的8例中1例再次接受LIFT治疗. 研究结果显示LIFT与其他治疗复杂性肛瘘的手术方法相比有明显优势[41,44-46]: (1)完全保留了肛门括约肌; (2)减少组织损伤, 缩短治愈时间; (3)创面小; (4)操作简单, 费用低; (5)对复发后二次手术治疗无任何障碍. 经括约肌间瘘管结扎术作为一项新技术, 其临床长期疗效及术后肛门括约肌功能仍需进一步研究.

5 结论

引流挂线肛门失禁风险低, 但复发率高, 且缺少循证医学的支持. 直肠黏膜瓣、肛周皮瓣推移术, 纤维蛋白胶和AFP治疗肛瘘导致肛门失禁的风险很低, 但复发率相对较高, 且对术者的技术要求较高. LIFT能较好解决上述问题, 但其长期临床疗效还有待研究. 没有单纯的技术能治愈复杂性肛瘘, 治疗时须综合考虑, 选择恰当的方法, 在维护肛门括约肌功能的前提下治愈肛瘘或减轻症状, 使复杂性肛瘘的根治和肛门功能的保护达到最佳效果.

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■同行评价
本文选题新颖, 具有一定的实用性和参考价值.

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