

doi: 10.13241/j.cnki.pmb.2014.25.019

腹腔镜疝修补术与传统修补术治疗腹股沟疝的效果比较*

吴仕和¹ 张炎^{1△} 邹贵军¹ 田磊¹ 郭晓东²

(1 海军总医院普通外科 北京 100037; 2 解放军第302医院 北京 100039)

摘要 目的:探讨腹腔镜手术修补腹股沟疝的临床效果,为普外科手术治疗提供可借鉴的方法。方法:选取2011年5月-2013年8月在我院接受疝修补术的112例患者的临床资料进行分析。根据手术方式,将所选病例分为传统开腹式疝修补术组(48例)和腹腔镜疝修补术组(64例)。分析并比较两组患者的术中出血量、手术时间、排气时间、肢体活动时间、复发率及并发症的发生率等。结果:腹腔镜疝修补术组患者的术中出血量、手术时间、排气、肢体活动及住院时间等临床指标均显著优于采用传统疝修补术的患者,差异显著且具有统计学意义($P<0.05$)。腹腔镜疝修补术组并发症发生率为21.88%,虽然低于传统疝修补术组(39.58%),但无显著性差异($P>0.05$)。腹腔镜疝修补术组复发率为3.13%,明显低于传统疝修补术组(8.33%),差异具有统计学意义($P<0.05$)。结论:腹腔镜疝修补术具有创伤小、恢复快及复发率低等优势,效果显著值得推广。但术后易发生肠粘连、阴囊血肿等并发症,术中应妥善处理,尽量减少或避免并发症的发生率。

关键词: 腹股沟疝;腹腔镜疝修补术;传统疝修补术;手术效果

中图分类号:R656.21 文献标识码:A 文章编号:1673-6273(2014)25-4880-03

Clinical Efficacy of the Transabdominal Preperitoneal Prosthetic on the Treatment of Inguinal Hernia*

WU Shi-he¹, ZHANG Yan¹, ZOU Gui-jun¹, TIAN Lei¹, GUO Xiao-dong²

(1 The General Hospital of Navy, PLA, Beijing, 100037, China; 2 302 Hospital of PLA, Beijing, 100039, China)

ABSTRACT Objective: To discuss the clinical effects of transabdominal preperitoneal prosthetic on the treatment of the inguinal hernia in order to make a reference to clinical surgeries. **Methods:** A retrospective analysis was performed about the clinical data of 112 patients with inguinal hernia who were accepted the operation of herniorrhaphy in our hospital from May 2011 to August 2013. According to the different operation methods, the selected patients were divided into the open surgery group (48 cases) and the TAPP group (64 cases). The patients in the open surgery group were received the routine operation method, while the patients in the TAPP group were treated by the laparoscope. Then the operation time, the blood loss, the time of aerofluxus and the activities, the hospitalization, the rate of recurrence and the incidence of postoperative complications of patients in the two groups were compared and analyzed. **Results:** The operation time, the blood loss, the time of aerofluxus and activities and the hospitalization of patients in the TAPP group were obviously better than those of the patients in the open surgery group with statistically significant differences ($P<0.05$); The incidence of complications in the TAPP group was 21.88% which was lower than 39.58% in the open surgery group, but there was no significant difference ($P>0.05$); The rate of recurrence in the TAPP group was 3.13% which was lower than 8.33% in the open surgery group with statistically significant difference ($P<0.05$). **Conclusions:** The transabdominal preperitoneal prosthetic is worthy of promoting to treat the herniorrhaphy with less trauma, better recovery and lower rate of recurrence. However, the postoperative complications, such as the intestinal adhesion, scrotal hematoma, which were brought by the laparoscopic surgery might be increased. Thus, it is suggested that we should take the proper decision to reduce or avoid the complications.

Key words: Inguinal hernia; Transabdominal preperitoneal prosthetic; The traditional hernia repair; Clinical efficacy

Chinese Library Classification(CLC): R656.21 **Document code:** A

Article ID: 1673-6273(2014)25-4880-03

前言

腹股沟疝(Inguinal hernia)是普外科的常见疾病,指腹腔解剖结构异常,腹股沟区结构薄弱、腹横筋膜缺损导致腹腔内器官或组织突出体表而形成的疝^[1,2]。腹股沟疝可引起肠梗阻、坏死及穿孔等,甚至导致死亡,严重威胁患者的生命^[3]。腹股沟疝

可通过外科手术进行修补,那么选择一种安全有效的手术方法对该疾病的治疗至关重要。传统的手术方法是利用患者自体组织进行修补,导致腹壁正常组织结构遭到破坏,而且手术创伤大、并发症发生率和复发率较高,影响患者术后的生存质量^[4,5]。近年来,腹腔镜技术被广泛应用于临床外科手术中,并取得了很好的效果,该技术具有创伤小、恢复快等优点。随着技术的改

* 基金项目:国家自然科学基金青年科学基金项目(30901795)

作者简介:吴仕和(1964-),副主任医师,主要从事胃肠肿瘤及组织工程等方面的研究

△通讯作者:张炎, E-mail: laohushanshang@163.com

(收稿日期:2013-12-20 接受日期:2014-01-19)

进,腹腔镜疝修补术逐渐成为治疗腹股沟疝的常用术式。相关文献表明,腹腔镜疝修补术能够控制术中出血量、缩短手术时间、减少手术创伤,利于患者术后恢复^[7-9]。本研究比较腹腔镜疝修补术与传统修补术治疗腹股沟疝的效果,探讨腹腔镜技术的特点,为普外科手术提供参考。

1 资料与方法

1.1 临床资料

选择 2011 年 5 月 -2013 年 8 月在我院进行手术治疗的 112 例腹股沟疝患者的临床资料,其中男 67 例,女 45 例,年龄分布在 25-72 岁,平均年龄 (42.11 ± 5.97) 岁。根据手术方式,将所选病例分为传统疝修补术组和腹腔镜疝修补术组。其中,传统疝修补术组 48 例患者,包括男 35 例,女 12 例;年龄 21-75 岁,平均 (39.08 ± 8.66) 岁;单侧斜疝 19 例,单侧直疝 12 例,双侧斜疝 9 例,双侧直疝 8 例。腹腔镜疝修补术组 64 例患者,包括男 53 例,女 11 例;年龄 23-76 岁,平均 (45.09 ± 6.35) 岁;单侧斜疝 28 例,单侧直疝 17 例,双侧斜疝 12 例,双侧直疝 7 例。两组患者的年龄、病情等一般资料无显著差异($P>0.05$),具有可比性。

1.2 手术方法

1.2.1 腹腔镜疝修补术 患者取仰卧位,采用气管插管静脉全麻,于脐下 2 cm 处作环形切口,置入 10 mm Trocar,建立气腹(13-15 mmHg);腹腔镜直视下,利用镜头向耻骨结节方向及侧腹股沟区分离,分别于麦氏点和反麦氏点处分别置入 2 个 5 mm Trocar,扩大腹膜前间隙直至显露耻骨肌孔全部结构;根据腹壁下动脉位置判断直疝或斜疝;将疝囊与精索完全分离;置入补片并完全覆盖环口、直疝三角,逐层关腹,缝合切口^[10]。

1.2.2 传统疝修补术 患者取仰卧位,硬膜外麻醉,脐下 6 cm 处作常规切口,逐层切开腹壁,明确疝囊位置并于精索内分离出来、结扎。将补片分别置于腹内斜肌、腹股沟韧带、耻骨结节、联合腱等组织,钉合固定,缝合切口^[14]。

1.3 观察指标

手术时间、术中出血量、术后排气时间、下床活动时间、复发率及并发症的发生率等。

1.4 统计学处理

采用 SPSS16.0 软件进行统计分析,组间数据比较采用 χ^2 检验,计量资料采用 t 检验,计数资料采用均数 $\pm$ 标准差表示,以 $P<0.05$ 为差异具有统计学意义。

2 结果

2.1 两种手术方式的临床效果比较

腹腔镜疝修补术组患者的手术时间为 (60.31 ± 11.53) min,术中出血量为 (181.24 ± 4.40) ml,排气时间为 (8.35 ± 1.77) d,肢体活动时间为 (6.25 ± 1.76) d,住院时间为 (10.23 ± 1.81) d;传统疝修补术组患者的手术时间为 (87.34 ± 12.99) min,术中出血量为 (261.79 ± 4.52) ml,排气时间为 (11.41 ± 0.27) d,肢体活动时间为 (8.11 ± 0.55) d,住院时间为 (15.38 ± 1.22) d。腹腔镜疝修补术组患者的术中出血量、手术时间、排气、肢体活动及住院时间等临床指标均显著优于采用传统疝修补术的患者,差异显著且具有统计学意义($P<0.05$)。

2.2 两种手术方式的并发症发生率

腹腔镜疝修补术组患者术后并发症情况:肠粘连 7 例、尿潴留 2 例、血清肿 5 例,并发症的发生率为 21.88%(15/64)。传统疝修补术组患者术后并发症情况:阴囊血肿 3 例、尿潴留 5 例、皮下气肿 4 例、切口感染 7 例,并发症的发生率为 39.58%(19/48)。腹腔镜疝修补术术后并发症的发生率低于传统疝修补术,但差异无统计学意义($P>0.05$)。

2.3 随访结果

术后随访 3 年,腹腔镜疝修补术组有 2 例患者复发,复发率为 3.13%(2/64);传统疝修补术组有 4 例患者复发,复发率为 8.33%(4/48)。与传统疝修补术比较,腹腔镜疝修补术的复发率较低,差异具有统计学意义($P<0.05$)。见表 1。

表 1 两组患者的手术情况及效果对比

Table 1 Comparison of the operation situation and the clinical effects between two groups

分组 Group	腹腔镜疝修补术组(n=64) TAPP group	传统疝修补术组(n=48) Control group	P 值 P
手术时间 Operation time (min)	67.82 $\pm$ 9.57	88.16 $\pm$ 8.94	0.036
术中出血量 Blood loss (ml)	296.48 $\pm$ 33.24	482.32 $\pm$ 24.21	0.041
术后排气时间 Aerofluxus (d)	11.12 $\pm$ 1.33	18.18 $\pm$ 1.09	0.044
下床活动时间 Time of moving (d)	6.05 $\pm$ 1.85	8.47 $\pm$ 1.23	0.040
住院时间 Hospitalization (d)	8.44 $\pm$ 1.63	11.28 $\pm$ 1.91	0.039
术后并发症 Complications(%)	14(21.88%)	19(39.58%)	0.062
肠粘连 Adhesive ileus	7(10.94%)	0(0%)	
阴囊血肿 Scrotum hematoma	0(0%)	3(6.08%)	
尿潴留 Uroschisis	2(3.13%)	5(10.42%)	
血清肿 Seroma	5(7.81%)	0(0%)	
皮下气肿 Pneumoderm	0(0%)	4(8.33%)	
切口感染 Incision Infection	0(0%)	7(14.58%)	
复发率 Recurrence(%)	3.13%(2/64)	8.33%(4/48)	0.033

3 讨论

腹股沟疝是临床常见的疾病,一般分为腹股沟斜疝和腹股沟直疝两种,患者需接受手术治疗^[11]。传统的疝修补术通常在

极大的张应力下进行,术中将患者腹腔内不同解剖结构的组织强行牵拉并固定在缺损部位,破坏了腹腔结构,对患者造成严重的手术损伤^[12,13]。据文献报道,传统腹股沟疝修补术后易出现多种并发症,而且复发疝的机率较高,对患者术后的生存质

量产生消极的影响^[14,15]。近年来,腹腔镜疝修补术被广泛应用,并取得很好的手术效果。相关研究表明,腹腔镜疝修补术作为一种无张力的微创手术方法,降低了手术对患者腹股沟区解剖结构及腹腔脏器组织的损伤程度,从而有效的控制术中出血量^[16,17]。此外,腹腔镜手术切口小,有利于患者术后尽快恢复,同时降低了术后发生感染的几率^[19,20]。

本研究中,与传统疝修补术患者相比较,采用腹腔镜疝修补术治疗的患者的手术时间、排气时间、肢体活动时间及住院时间明显缩短,且术中出血量少,差异显著($P < 0.05$)。说明腹腔镜疝修补术的效果显著,手术损伤小,术后患者能够在短时期内恢复体力,从而改善了患者的生存质量。分析原因,我们认为腹腔镜下实施疝修补术,扩大了手术视野,易于操作,最大程度的减少手术对患者造成的损伤,有利于患者恢复。本研究结果显示,传统疝修补术后并发症的发生率为 39.58%,主要表现为切口感染和尿潴留,腹腔镜疝修补术后并发症的发生率为 21.88%,其中肠粘连 7 例,占 10.94%;尿潴留 2 例,占 3.13%;血清肿 5 例,占 7.81%。两组并发症经对症处理均获得缓解。结果提示我们,腹腔镜疝修补术虽然可以减少术后并发症的发生机率,但仍会导致肠粘连、腹股沟区血肿或血清肿等并发症发生,严重的甚至导致内脏血管损伤,危及患者生命。因此,我们认为疝修补术中应妥善处理腹腔组织的游离和结扎,尽量保持腹膜瓣的完整性,避免肠粘连的发生^[18]。此外,腹腔镜疝修补术组患者术后 3 年内的复发率为 3.13%,明显低于传统疝修补术组($P < 0.05$)。说明腹腔镜疝修补术的远期效果良好,患者的生存质量得到提高。

综上所述,腹腔镜疝修补术具有手术时间短、恢复快、疼痛轻、并发症少、复发率低等特点,用于腹股沟疝的临床效果显著,值得推广。

参考文献(References)

- [1] Carvalho GL, Loureiro MP, Bonin EA, et al. Mini laparoscopic technique for inguinal hernia repair combining trans abdominal pre-peritoneal and totally extra peritoneal approaches[J]. JSLS, 2012, 16(4):569-575
- [2] Fumagalli Romario U, Puccetti F, Elmore U, et al. Self-gripping mesh versus staple fixation in laparoscopic inguinal hernia repair: a prospective Comparison[J]. Surg Endosc, 2013,27(5):1798-1802
- [3] Esposito C, Turial S, Alicchio F, et al. Laparoscopic repair of incarcerated inguinal hernia. A safe and effective procedure to adopt in children[J]. Hernia, 2013,17(2):235-239
- [4] 苏杰,吕凯莹,王鑫瑜,等. 前入路腹膜前修补腹股沟疝 82 例临床分析[J]. 现代生物医学进展,2012,12(16):3123-3125
Su Jie, Lv Kai-ying, Wang Xin-yu, et al. Clinical analysis of the peritoneal operation method on the treatment of inguinal hernia with 82 cases[J]. Progress in Modern Biomedicine, 2012,12(16):3123-3125
- [5] Ates M, Dirican A, Ozgor D, et al. Conversion to Stop a procedure in laparoscopic totally extra peritoneal inguinal hernia repair [J]. JSLS, 2012,16(2):250-254
- [6] 肖立俊,金秉巍,常奇蒙,等. 充填式无张力疝修补术及并发症防治[J]. 现代生物医学进展,2011,11(16):3166-3168
Xiao Li-jun, Jin Bing-wei, Chang Qi-meng, et al. PMHR and the treatment for complications [J]. Progress in Modern Biomedicine, 2011,11(16):3166-3168
- [7] Kingsnorth A, Gingell-Littlejohn M, Nienhuijs S, et al. Randomized controlled multicenter international clinical trial of self-gripping Parietex™ ProGrip™ polyester mesh versus lightweight polypropylene mesh in open inguinal hernia repair: interim results at 3 months[J]. Hernia, 2012,16(3):287-294
- [8] Abbas AE, AbdEllatif, Noaman N, et al. Patient-perspective quality of life after laparoscopic and open hernia repair: a controlled randomized trial[J]. Surg Endosc, 2012,26(9):2465-2470
- [9] 程中良,据官群,邹翔宇,等. 腹膜间皮细胞与聚羟基乙酸的细胞相容性研究[J]. 现代生物医学进展,2013,13(22):4219-4221+4205
Cheng Zhong-liang, Ju Guan-qun, Zou Xiang-yu, et al. Experimental Research on Cell Biocompatibility of Polyglycolic Acids with Peritoneal Mesothelial Cell [J]. Progress in Modern Biomedicine, 2013,13(22):4219-4221+4205
- [10] Williams KB, Bradley JF, Wormer BA, et al. Postoperative quality of life after open transinguinal preperitoneal inguinal hernia repair using memory ring or three-dimensional devices [J]. Am Surg, 2013,79(8):786-793
- [11] 阿不来克木·马合木提,迪里夏提·阿力木,艾力·马合木提,等. 普理灵疝装置治疗 110 例老年腹股沟疝的临床观察[J]. 现代生物医学进展,2013,13(17):3328-3330
ABULAIKEMU·Ma-hemuti, DILIXIATI·A-limu, AILI·Ma-hemuti, et al. Clinical Analysis of 110 Senile Patients with Inguinal Hernia Treated by the Prolene Hernia System[J]. Progress in Modern Biomedicine, 2013,13(17):3328-3330
- [12] Prins MW, Koning GG, Keus EF, et al. Study protocol for a randomized controlled trial for anterior inguinal hernia repair: transrectus sheath preperitoneal mesh repair compared to transinguinal preperitoneal procedure[J]. Trials 2013,14:65
- [13] Henriksen NA, Sorensen LT, Jorgensen LN, et al. Lack of association between inguinal hernia and abdominal aortic aneurysm in a population-based male cohort[J]. Br J Surg, 2013,100(11):1478-1482
- [14] Campanelli G, Pascual MH, Hoeflerlin A, et al. Randomized, controlled, blinded trial of Tisseel/Tissucol for mesh fixation in patients undergoing Lichtenstein technique for primary inguinal hernia repair: results of the TIMELI trial [J]. Ann Surg, 2012,255(4):650-657
- [15] Donati M, Brancato G, Giglio A, et al. A retrospective historical cohort evaluation of 18-years' experience with a mesh & plug inguinal hernia repair method on about 3000 patients [J]. BMC Surg, 2013,13 (Suppl 2):S19
- [16] 吴仕和,张炎,郭晓东,等. 腹会阴直肠癌柱状切除术经改良后治疗低位直肠癌的 30 例临床效果分析[J]. 现代生物医学进展,2013,13 (24):4663-4666
Wu Shi-he, Zhang Yan, Guo Xiao-dong, et al. The Clinical Analysis about the Application of Modified Cylindrical Abdominoperineal Resection on the Low-set Rectal Cancers with 30 cases[J]. Progress in Modern Biomedicine, 2013,13(24):4663-4666
- [17] Fitzgibbons RJ, Ramanan B, Arya S, et al. Long-term results of a randomized controlled trial of a nonoperative strategy (watchful waiting) for men with minimally symptomatic inguinal hernias [J]. Ann Surg, 2013,258(3):508-515
- [18] Nikkolo C, Murruste M, Vaasna T, et al. Three-year results of randomized clinical trial comparing lightweight mesh with heavyweight mesh for inguinal hernioplasty [J]. Hernia, 2012,16(5):555-559
- [19] Compagna R, Vigliotti G, Coretti G, et al. Comparative study between Levobupivacaine and Bupivacaine for hernia surgery in the elderly[J]. BMC Surg, 2012,12(Suppl 1):S12
- [20] Jorgensen LN, Sommer T, Assaadzadeh S, et al. Randomized clinical trial of self-gripping mesh versus sutured mesh for Lichtenstein hernia repair[J]. Br J Surg, 2013,100(4):474-481