

doi: 10.13241/j.cnki.pmb.2017.14.012

胸腔镜局麻下治疗结核性胸膜粘连及包裹*

田德兴 唐 微[△] 肖贞良 李福祥 胡 绳

(成都军区总医院呼吸科 四川 成都 610083)

摘要 目的:研究胸腔镜局麻下治疗结核性胸膜粘连及包裹的方法及临床效果。**方法:**以我院自2014年3月23日-2016年3月23日收治的68例结核性胸膜炎粘连包裹患者为研究对象,采用随机数表法分成两组。观察组接受胸腔镜局麻下粘连分离术治疗,对照组采取常规穿胸水引流术治疗,比较两组临床效果。**结果:**观察组总有效率(94.12%)高于对照组总有效率(85.29%),组间差异显著($P<0.05$)。观察组患者治疗后6个月BORG评分低于治疗后1个月,差异有统计学意义($P<0.05$)。观察组患者治疗后1、3、6个月BORG评分均显著低于对照组($P<0.05$)。接受治疗后3、6个月,对照组患者BORG评分均低于治疗后1个月,差异均有统计学意义($P<0.05$)。观察组患者治疗后6个月FVC水平高于治疗后3个月($P<0.05$)。相较于对照组,观察组患者治疗后1、3、6个月FVC水平明显更高($P<0.05$)。**结论:**胸腔镜局麻下治疗结核性胸膜粘连及包裹效果十分显著,可明显改善患者肺功能和临床症状,对患者有利。

关键词:胸腔镜;局麻;结核性胸腔积液;粘连;包裹

中图分类号:R521.7 **文献标识码:**A **文章编号:**1673-6273(2017)14-2655-04

Thoracoscopy Under Local Anesthesia in the Treatment of Tuberculous Pleural Adhesions and Parcel*

TIAN De-xing, TANG Wei[△], XIAO Zhen-liang, LI Fu-xiang, HU Sheng

(Department of Respiration, Chengdu Military General Hospital, Chengdu, Sichuan, 610083, China)

ABSTRACT Objective: To study the method and clinical effect of thoracoscopy under local anesthesia in the treatment of tuberculous pleural adhesions and parcel. **Methods:** 68 patients with loculated tuberculous pleurisy in our hospital were selected as research objects and were divided into two groups by random number table. The observation group ($n=33$) received thoracoscopy under local anesthesia adhesiotomy treatment, while the control group ($n=33$) were taken routine chest water drainage treatment. Clinical effect of two groups was compared. **Results:** The total efficiency of the observation group was 94.12%, which was higher than 85.29% of the control group, and the difference was statistically significant ($P<0.05$). BORG score of patients in the observation group at 6 months after treatment were lower than that after 1 month treatment ($P<0.05$). BORG score of observation group after 1, 3 and 6 months treatment were lower significantly than that in the control group ($P<0.05$), respectively. As for control group, BORG scores were after treatment 3, 6 months were lower than the scores at 1 month ($P<0.05$). And 6 month after treatment, FVC levels of patients in the observation group was higher ($P<0.05$), when compared to 3 month. Compared with control group, FVC levels of the patients in the observation group were higher after treatment 1, 3 and 6 months ($P<0.05$). **Conclusion:** Thoracoscopy under local anesthesia in the treatment of tuberculous pleural adhesions and the package effect is very significant. It can significantly improve lung function and clinical symptoms, which is good for the patient.

Key word: Thoracoscopy; Local anesthesia; Tuberculous pleural effusion; Adhesion; Package

Chinese Library Classification(CLC): R521.7 **Document code:** A

Article ID: 1673-6273(2017)14-2655-04

前言

结核是常见的呼吸系统疾病,结核性胸膜炎引起的胸膜粘连和包裹会引起严重的临床症状,因此需要适宜的治疗^[1,2]。目前国内治疗方法多采用抗痨同时反复抽吸胸水或加用小剂量激素,以促进胸水吸收,防止胸膜粘连,抽吸引流虽然对部分患者有效,但病情较为严重或者其它原因均可能令治疗无效化,

患者病情会不断加重,令治疗变得棘手,甚至引起患者死亡^[3-6]。而胸腔镜投入使用后,利用其直视之便,在局麻下开展治疗,可有效的处理病变,分离粘连以及包裹,可能较常规治疗更有优势^[7,8]。本研究对胸腔镜局麻下治疗结核性胸膜粘连及包裹的方法及临床效果进行探讨,现报道如下。

1 资料与方法

* 基金项目:国家自然科学基金项目(81171869)

作者简介:田德兴(1971-),本科,研究方向:急性呼吸窘迫综合征(ARDS),E-mail: 1156880561@qq.com

[△] 通讯作者:唐微,E-mail: 1156880561@qq.com

(收稿日期:2017-01-08 接受日期:2017-01-27)

1.1 一般资料

以我院自 2014 年 3 月 23 日 -2016 年 3 月 23 日收治的 68 例结核性胸膜炎粘连包裹患者为研究对象,采用随机数表法分成两组。观察组 34 例,其中男 23 例,女 11 例,年龄在 19-57 岁,平均年龄(37.3± 6.1)岁;对照组 34 例,其中男 24 例,女 10 例,年龄在 18-55 岁,平均年龄(36.8± 6.3)岁;纳入自愿签署知情同意书,且病程 2 个月内患者;排除肺炎性胸腔积液者、恶性胸腔积液者、心衰者、低蛋白血症者、精神疾病者、恶性肿瘤者。两组患者一般资料比较,无显著差异($P>0.05$)。

1.2 方法

观察组患者接受胸腔镜局麻下粘连分离术治疗,选择健侧卧位,在患侧的腋侧胸壁第 5-7 根肋骨间做切口,给予穿刺点 10 mL 2%利多卡因进行局部麻醉,盐酸哌啶定 50 mg 进行肌肉注射,可镇静,密切观察患者的自主呼吸和生命体征;在穿刺点做 10-20 mm 切口,钝性剥离皮下组织,直至胸膜,将穿刺套管置入,经套管置入胸腔镜,按顺序观察患者的隔胸膜、壁层、脏层以及切口周围的胸膜,对粘连带、胸壁粘连及肺组织依次进行钝性分离,病变胸壁进行活检,给予切口 200-300 mL 0.5% 生理盐水灌洗,经套管将闭式引流管置入胸腔,缝合,由 X 线检查了解病情。对照组患者接受常规穿胸水引流术治疗。

1.3 观察指标

疗效评定标准^[9,10]:显效:临床体征及症状基本消失,胸部 X 线检查显示正常,无肋间隙变窄、肋隔角变钝、胸廓变形等发生;有效:临床体征及症状明显改善,胸部 X 线检查显示有明显改善,无明显肋间隙变窄、肋隔角变钝、胸廓变形等发生,胸膜肥厚,无液体;无效:与上述不符;总有效率=(显效+有效)/ $n \times 100\%$ 。采取伯格(BORG)量表对患者症状恢复程度进行评定,分数 0-10 分,分数越低,代表症状越轻,由患者根据自身情况评分。观察两组患者治疗后 1、3、6 个月的用力肺活量(FVC)水平。

1.4 统计学方法

数据统计学分析采用 SPSS 17.0 专业软件处理。计数资料以率(%)表示, χ^2 检验;计量资料以 $\bar{x} \pm s$ 表示,行组间 t 检验。以 $P<0.05$ 表示差异有统计学意义。

2 结果

2.1 两组临床疗效

观察组总有效率(94.12%)高于对照组总有效率(85.29%),组间差异显著($P<0.05$)。见表 1。

表 1 两组临床疗效对比 [n,n(%)]

Table1 Comparison of clinical effects between the two groups [n,n(%)]

Groups	n	Excellent	Effective	Ineffective	Total effective rate
Observation group	34	18(52.94)	14(41.18)	2(5.88)	94.12
Control group	34	14(41.18)	15(44.12)	5(14.71)	85.29
χ^2					2.649
P					<0.05

2.2 两组治疗后临床症状 BORG 评分

观察组患者治疗后 6 个月 BORG 评分低于治疗后 1 个月,差异有统计学意义($P<0.05$)。观察组患者治疗后 1、3、6 个

月 BORG 评分均显著低于对照组($P<0.05$)。此外,治疗后 3、6 个月,对照组患者 BORG 评分均低于治疗后 1 个月,差异显著($P<0.05$),见表 2。

表 2 两组治疗后临床症状 BORG 评分对比 [$\bar{x} \pm s$, 分]

Table2 Comparison of BORG score of clinical effects between the two groups after treatment [$\bar{x} \pm s$, score]

Groups	n	1 month	3 months	6 months
Observation group	34	2.1± 0.9 ^b	1.1± 0.4 ^b	0.6± 0.2 ^{ab}
Control group	34	5.1± 1.9	3.1± 0.9 ^a	2.1± 0.9 ^a

Note: compared with 1 month, ^a $P<0.05$; compared with control group, ^b $P<0.05$.

2.3 两组治疗后 FVC 水平

观察组患者治疗后 6 个月 FVC 水平高于治疗后 3 个月,

差异有统计学意义 ($P<0.05$)。观察组患者治疗后 1、3、6 个月 FVC 水平均高于对照组,差异均有统计学意义($P<0.05$)。见表 3。

表 3 两组治疗后 FVC 水平对比 [$\bar{x} \pm s$, %]

Table3 Comparison of FVC levels between the two groups after treatment [$\bar{x} \pm s$, %]

Groups	n	1 month	3 months	6 months
Observation group	34	72.2± 11.3 ^b	79.3± 13.2 ^b	94.1± 9.1 ^{ab}
Control group	34	55.4± 6.1	63.4± 9.2	69.3± 11.3

Note: compared with 1 month, ^a $P<0.05$; compared with control group, ^b $P<0.05$.

3 讨论

在我国结核病是一种常见的呼吸系统性疾病,结核杆菌的感染率很高,世界范围内约 20 亿人有过结核菌感染的情况,其中仅少部分为活动性肺结核^[11-14]。但活动性肺结核致死率相当高,因此必须需要适宜的治疗。目前肺结核已成为因传染病致死的主要原因之一,需要适宜的治疗。结核性胸膜炎在结核患者中比例较高,主要由结核分枝杆菌和代谢产物进入超敏状态胸膜腔中引起的胸膜炎,在治疗不及时时,会因结核分枝杆菌的特殊特征,导致极短时间内出现胸膜粘连以及包裹^[15,16]。一般粘连以及包裹的患者治疗难度更大,需要适宜的治疗方法以减轻患者痛苦,提高治疗效果。

常规治疗为抽取胸水,需要反复进行,同时辅以促进胸水吸收的药物。多数患者在常规治疗下可得到较好的恢复,但仍然会出现部分患者无效的情况,因此而导致的病情恶化会使治疗越来越棘手,并且可能引起生命危险,因此探讨更加有效的治疗方法十分重要^[17,18]。随着胸腔镜技术的不断发展,并广泛运用于临床,其优秀的诊断、治疗辅助作用得以逐渐显现。胸腔镜虽然是有创的治疗方法,但利用胸腔镜可以清晰的观察患者的胸腔变化,对患者胸膜进行检查,可以帮助进行直视下清除胸腔病变,方便医师进行操作,并且对于胸膜粘连和包裹治疗效果显著,在进行治疗时,也可避免后遗症的发生以及结核性胸膜炎的进一步恶化,如胸廓塌陷、肺功能持续损害等,最大程度上的减轻了患者的痛苦^[19,20]。且胸腔镜手术比较简单,配合局麻即可完成,患者耐受较好。

本文中我们研究结果显示,观察组总有效率 94.12%,对照组总有效率 85.29%观察组患者疗效总有效率高高于对照组,说明较之常规治疗,胸腔镜局麻下治疗结核性胸膜粘连和包裹总体效果更胜一筹,而对患者的临床症状进行的客观评定结果也显示,观察组患者治疗后 1、3、6 个月 BORG 评分均低于对照组,差异均有统计学意义,胸腔镜可引导精确的对粘连带进行分离,改善患者症状,较反复胸水抽吸效果更好,而肺功能评分结果也显示出了胸腔镜局麻下治疗结核性胸膜粘连及包裹的优越性,观察组患者治疗后 1、3、6 个月 FVC 水平平均高于对照组。

综上所述,胸腔镜局麻下治疗该病的费用较为低廉,并且其显著的治疗效果更易使患者接受,对结核性胸膜粘连及包裹的治疗具有重要意义。

参考文献(References)

- [1] 郭洋. 内科胸腔镜对治疗结核性胸腔积液的临床观察[J]. 中外健康文摘, 2013, 13(30): 240-240, 241
- Guo Yang. Medical thoracoscopy for the treatment of tuberculous pleural effusion clinical observation [J]. World Health Digest, 2013, 13(30): 240-240, 241
- [2] 高亭, 何小鹏, 党焱, 等. 胸腔镜冷冻治疗纤维粘连为主型结核性胸腔积液的临床观察 [J]. 临床肺科杂志, 2016, 21 (12): 2189-2191, 2192
- Gao Ting, He Xiao-peng, Dang Yan, et al. Efficacy of thoracoscopic cryotherapy for fibronectin predominant of tuberculous pleurisy effusion [J]. Journal of Clinical Pulmonary Medicine, 2016, 21(12):

2189-2191, 2192

- [3] 舒敬奎, 刘凌, 张剑青, 等. 内科胸腔镜下结核性胸腔积液胸膜粘连程度分级及影响因素分析[J]. 中国内镜杂志, 2016, 22(5): 1-5
- Shu Jing-kui, Liu Ling, Zhang Jian-qing, et al. Grading of pleural adhesion of tuberculous pleural effusion in medical thoracoscopy and analysis of related factors [J]. China Journal of Endoscopy, 2016, 22 (5): 1-5
- [4] 陈浩, 刘伟, 王宏宇, 等. CT 引导下穿刺注射亚甲蓝定位在胸腔镜治疗肺部小结节中的应用分析 [J]. 现代生物医学进展, 2016, 16(34): 6721-6723, 6720
- Chen Hao, Liu Wei, Wang Hong-yu, et al. Application of CT Guided Preoperative Localization with Percutaneous Injection of Methylene Blue in the Treatment of Small Pulmonary Nodules [J]. Progress in Modern Biomedicine, 2016, 16(34): 6721-6723, 6720
- [5] 李冬琼, 李多, 王文军, 等. 可弯曲内科胸腔镜在渗出性胸腔积液诊断中的应用[J]. 中国现代医药杂志, 2015, 15(5): 9-12
- Li Dong-qiong, Li Duo, Wang Wen-jun, et al. Application of flexible medical thoracoscopy in the diagnosis of exudative pleural effusion [J]. Modern Medicine Journal of China, 2015, 15(5): 9-12
- [6] 李清贤, 王慧林. 内科胸腔镜对胸腔积液诊断和治疗的临床价值[J]. 国际呼吸杂志, 2016, 36(4): 262-264
- Li Qing-xian, Wang Hui-lin. Clinical value of medical thoracoscopy in diagnosis and treatment of patients with pleural effusion [J]. International Journal of Respiration, 2016, 36(4): 262-264
- [7] 王述桃. 局麻下胸腔镜治疗结核性包裹性胸膜炎的疗效分析[J]. 临床肺科杂志, 2013, 18(11): 2053-2054
- Wang Shu-tao. Analysis of curative effect of local anesthesia-assisted thoracoscopy in the treatment of tuberculous encysted pleurisy [J]. Journal of Clinical Pulmonary Medicine, 2013, 18(11): 2053-2054
- [8] 刘福升, 徐建华, 宫理达, 等. 胸腔镜辅助治疗早期结核性包裹性胸腔积液 112 例[J]. 中国微创外科杂志, 2014, 14(7): 618-620
- Liu Fu-sheng, Xu Jian-hua, Gong Li-da, et al. Video-assisted Thoracoscopic Treatment for Early Tuberculous Encapsulated Pleural Effusions: 112 Cases Report [J]. Chinese Journal of Minimally Invasive Surgery, 2014, 14(7): 618-620
- [9] 白峰, 张小雷, 刘佳坤, 等. 局麻单孔胸腔镜治疗结核性胸膜炎[J]. 西部医学, 2013, 25(8): 1198-1199, 1202
- Bai Feng, Zhang Xiao-lei, Liu Jia-kun, et al. The Study about the therapy of tuberculous pleurisy by thoracoscope [J]. Medical Journal of West China, 2013, 25(8): 1198-1199, 1202
- [10] 党焱, 何小鹏, 高亭, 等. 胸腔镜下冷冻联合尿激酶注入治疗结核性包裹性胸腔积液的疗效观察 [J]. 疑难病杂志, 2016, 15(11): 1112-1115
- Dang Yan, He Xiao-peng, Gao Ting, et al. Thoracoscopy and the urokinase injection in the treatment of tuberculous encapsulated pleural effusion [J]. Chinese Journal of Difficult and Complicated Cases, 2016, 15(11): 1112-1115
- [11] 张廷梅, 陈静, 李春兰, 等. 结核性胸膜炎胸腔镜下表现与临床特点分析[J]. 临床肺科杂志, 2014, 14(10): 1825-1827
- Zhang Ting-mei, Chen Jing, Li Chun-lan, et al. Analysis of manifestations and clinical characteristics of tuberculous pleurisy via thoracoscopy [J]. Journal of Clinical Pulmonary Medicine, 2014, 14 (10): 1825-1827

- [12] 高辉,管媛.内科胸腔镜冷冻与高频电刀治疗结核性包裹性胸腔积液临床研究[J].临床肺科杂志, 2016, 16(2): 307-308, 309
Gao Hui, Guan Yuan. Clinical study of thoracoscopy cryotherapy and high-frequency electrotome in the treatment of encapsulated tuberculous pleural effusion [J]. Journal of Clinical Pulmonary Medicine, 2016, 16(2): 307-308, 309
- [13] 张春来,黄炎明,卢焕平,等.结核性包裹性胸膜炎局麻下胸腔镜治疗的效果研究[J].中国现代药物应用, 2016, 10(20): 5-7
Zhang Chun-lai, Huang Yan-ming, Lu Huan-ping, et al. Research of effect by thoracoscope with local anesthesia in the treatment of tuberculous encysted pleurisy [J]. Chinese Journal of Modern Drug Application, 2016, 10(20): 5-7
- [14] 庄亚琴,高习文,颜志军,等.内科胸腔镜在结核性胸膜炎临床诊断中的应用[J].中国临床医学, 2016, 23(4): 499-501
Zhuang Ya-qin, Gao Xi-wen, Yan Zhi-jun, et al. Application of medical thoracoscopy in clinical diagnosis of tuberculous pleuritis[J]. Chinese Journal of Clinical Medicine, 2016, 23(4): 499-501
- [15] Sahn SA, Huggins JT, SanJosé ME, et al. Can tuberculous pleural effusions be diagnosed by pleural fluid analysis alone? [J]. The international journal of tuberculosis and lung disease, 2013, 17(6): 787-793
- [16] Lee J, Lee SY, Lim JK, et al. Radiologic and laboratory differences in patients with tuberculous and parapneumonic pleural effusions showing non-lymphocytic predominance and high adenosine deaminase levels[J]. Infection, 2015, 43: 65
- [17] Lamiaa Ibrahim, Manal Salah, Azema Abd El Rahman, et al. Crucial role of CD4+CD 25+ FOXP3+ T regulatory cell, interferon- γ and interleukin-16 in malignant and tuberculous pleural effusions [J]. Immunological Investigations, 2013, 42(1/4): 122-136
- [18] 胡绳,田坤,张定涛,等.胸腔镜下结核性胸膜炎的镜下特征及临床特点[J].西南国防医药, 2015, 15(3): 273-275
Hu Sheng, Tian Kun, Zhang Ding-tao, et al. Characteristics of tuberculous pleurisy under thoracoscopy and clinical features [J]. Medical Journal of National Defending Forces in Southwest China, 2015, 15(3): 273-275
- [19] Geffner L, Basile JI, Yokobori N, et al. CD4⁺CD25⁺ highforkhead box protein 3⁺ regulatory T lymphocytes suppress interferon- γ and CD107 expression in CD4⁺ and CD8⁺ T cells from tuberculous pleural effusions [J]. Clinical and Experimental Immunology, 2014, 175(2): 235-245
- [20] 宋敬坤,苏月巧,史淑娟,等.局麻单孔胸腔镜治疗结核性胸膜炎患者的护理[J].河北医药, 2014, 14(17): 2695-2696
Song Jing-kun, Su Yue-qiao, Shi Shu-juan, et al. Nursing of tuberculous pleurisy patients after thoracoscope [J]. Hebei Medical Journal, 2014, 14(17): 2695-2696

(上接第 2775 页)

- [7] Clemens KK, McArthur E, Fleet JL, et al. The risk of pancreatitis with sitagliptin therapy in older adults: a population-based cohort study[J]. CMAJ Open, 2015, 3(2): 172-181
- [8] Sahani DV, Bonaffini PA, Catalano OA, et al. State-of-the-art PET/CT of the pancreas: current role and emerging indications [J]. Radiographics, 2012, 32(4): 1133-1158
- [9] Triantopoulou C, Kolliakou E, Karoumpalis I, et al. Metastatic disease to the pancreas: an imaging challenge [J]. Insights Imaging, 2012, 3(2): 165-172
- [10] Balthazar FJ. Complications of acute pancreatitis: clinical and CT evaluation[J]. Radial Clin North Am, 2002, 40(6): 1211-1227
- [11] Tsuji Y, Takahashi N, Tsutomu C. Pancreatic Perfusion CT in Early Stage of Severe Acute Pancreatitis [J]. Int J Inflam, 2012, 2012: 497386
- [12] Ray S, Khamrui S, Kataria M, et al. Valproic acid-induced severe acute pancreatitis with pseudocyst formation: report of a case [J]. Cureus, 2015, 7(8): e297
- [13] Sun L, Li W, Sun F, et al. Intra-abdominal pressure in third trimester pregnancy complicated by acute pancreatitis: an observational study [J]. BMC Pregnancy Childbirth, 2015, 15(1): 223
- [14] Shiral Y, Okamoto T, Kanehira M, et al. Pancreatic follicular lymphoma presenting as acute pancreatitis: report of a case [J]. Int Surg, 2015, 100(6): 1078-1083
- [15] Kamal A, Singh VK, Zaheer A. Severe acute pancreatitis: is organ failure enough?[J]. Radiology, 2015, 277(1): 304-306
- [16] Gou S, Yang C, Yin T, et al. Percutaneous catheter drainage of pancreatitis associated ascetic fluid in early-stage severe acute pancreatitis[J]. Pancreas, 2015, 44(7): 1161-1172
- [17] Meher S, Mishra TS, Sasmal PK, et al. Role of biomarkers in diagnosis and prognostic evaluation of acute pancreatitis [J]. J Biomark, 2015, 2015: 519534
- [18] Wang HL, Yu KJ. Sequential blood purijication therapy for critical patients with hyperlipidemic severe acute pancreatitis [J]. World J Gastroenterol, 2015, 21(20): 6304-6309
- [19] Kolbe N, Bakey S, Louwers L, et al. Predictors of clavier 4 complications and mortality after necrosectomy: analysis of the NSOIP database[J]. J Gastrointest Surg, 2015, 19(6): 1086-1092