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肾囊肿腹腔镜手术后复发原因分析与对策

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摘要 目的:分析肾囊肿腹腔镜手术后复发原因并提出相应对策。**方法:**回顾性分析我院 2006 年 1 月至 2011 年 1 月(肿)的诊疗过程和复发情况,分析复发原因并提出需要重视的相关技术细节。**结果:**325 例病人复发 28 例,其中囊壁游离不充分,囊壁切除不够 7 例,占复发病例 25.0%;手术清除 2 月采用腹腔镜技术治疗的 325 例单纯性肾囊肿患者(412 个肾囊不够 16 例,占复发病例 57.1%;术后尿性囊肿形成误判为囊肿复发 2 例,占复发病例 7.1%,其他 3 例,占 10.7%。**结论:**腹腔镜技术是一种安全、有效的单纯性肾囊肿治疗方法,选择合理的手术入路,同时对某些技术环节合理运用和改良,有助于降低术后复发率。

关键词:肾囊肿;腹腔镜;复发;对策

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Causative Analysis and Countermeasures of Recurrence of Renal Cyst after Laparoscopic Operation

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ABSTRACT Objective: To analyse the causes of renal cyst recurrence after laparoscopic operation and put forward corresponding countermeasures. **Methods:** The recurrent conditions, process of diagnosis, and treatment of 325 patients with simple renal cysts(412 renal cyst) who were managed by retroperitoneal laparoscopic techniques from Jan 2006 to Dec 2011 were discussed by retrospective analysis. Recurrent reasons were analysed and related technical details were put forward. **Results:** There were 28 cases of recurrence in the postoperative following-up. 7 cases were cystic wall- dissociated or resected insufficiently, accounting for 25% of the cases; 16 cases were nidus removal insufficiency, accounting for 57.1% of the cases; 2 cases were urinoma which were mistaken for renal cyst, accounting for 7.1% of the cases; the other 3 cases,accounting for 10.7% of the cases. **Conclusion:** Laparoscopic technique is a kind of effective and safe treatment for renal cysts. To choose a proper surgical approach, and to improve the operative techniques will contribute to the reduction in recurrence rate.

Key words: Renal cyst; Laparoscopic; Recurrent; Countermeasures

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前言

单纯性肾囊肿的微创治疗既往多采用超声引导下的穿刺吸液和硬化剂注射治疗,但总体治疗效果不理想,复发率高,更不适合一些手术耐受力差的患者^[1-3]。1994 年那彦群在国内首次报道腹腔镜肾囊肿切除术^[4-6],随着腹腔镜技术和设备的日益成熟,肾囊肿在国内大多数医院均已改为腹腔镜手术治疗^[7-9]。腹腔镜肾囊肿切除术具有创伤小、术后恢复快、并发症少、疗效确切等优点,但存在术后复发现象^[10-12]。如何才能减少肾囊肿腹腔镜手术后复发值得研究。本研究通过回顾我院 2006 年 1 月至 2011 年 12 月采用腹腔镜技术治疗肾囊肿 325 例旨在探讨肾囊肿腹腔镜手术后复发的原因及分析需要加以重视的技术细节,为减少肾囊肿腹腔镜手术后复发提供技术依据。

1 临床资料

1.1 一般资料

收集 2006 年 1 月至 2011 年 12 月共收治肾脏单纯性囊肿 325 例的临床资料。其中男性 175 例,女性 150 例;年龄 27-65 岁,平均(47.5±10.5)岁;肾囊肿直径 4.3-10.5 cm,平均(5.6±1.7)cm;左肾囊肿 172 例,右侧肾囊肿 153 例;共完成囊肿去顶减压手术 412 个,上极囊肿 115 个,肾脏中份囊肿 98 个,肾下极囊肿 182 个例,肾盂旁囊肿 17 例;412 个囊肿中靠近腹膜侧囊肿 113 个,直径超过 9 cm 的囊肿 19 个;手术适应症:(1)囊肿直径>4.0 cm;(2)与囊肿相关的腰痛、血尿等症状,并能排除其他疾病引起的可能性;(3)囊肿导致的高血压、输尿管梗阻、肾实质压迫性萎缩等并发症。

1.2 手术方法

采用后腹腔镜技术肾囊肿去顶减压术。首先于腋后线 12 肋缘下一横指做 2-3 cm 皮肤切口,血管钳钝性撑开腹壁肌肉及腰背筋膜,手指于后腹膜间隙稍作钝性分离后用自制气囊扩

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张,注气 500 mL,保持 3 min。然后依次于腋前线肋缘下、腋中线髂嵴上 2 cm 在手指引导下分别置入 5 mm、10 mm 套管,建立手术通道,接 CO₂ 气腹机,压力 15 mm Hg。肥胖患者首先清理肾旁脂肪至髂窝上缘,切开肾后筋膜,根据 B 超、CT 提示的肾囊肿位置,若为肾脏下极、背侧囊肿,直接打开肾周脂肪囊,游离肾囊肿达囊肿与肾实质交界处;若为上极或肾脏腹侧囊肿,则先在肾周脂肪囊外腹侧和背侧无血管平面游离,获得充分的操作空间后再打开肾周脂肪囊完整游离囊肿。囊肿过大或操作空间不够,可在游离囊肿大部分后释放囊液,再继续游离其余囊壁。超声刀或电钩距囊肿边缘 0.5 cm 切除突出于肾实质外的囊肿壁。2% 碘酒、70% 酒精处理残余囊壁,囊肿切缘止血,将预先游离好的带血供条形肾周脂肪囊填充入残余囊腔内,2-3 个钛夹将填充的脂肪固定于残余肾囊肿壁。降低气腹压,检查手术区域、止血,结束手术。

2 结果

随访 6 个月 -5 年,复发病例 28 例,占 8.6%,其中囊壁游离不充分,囊壁切除不够 7 例,占复发病例 25.0%;手术清除不够 16 例,占复发病例 57.1%;术后尿性囊肿形成误判为囊肿复发 2 例,占复发病例 7.1%,其他 3 例,占 10.7%。复发时间在术后 2 月 -6 月不等。复发病例从囊肿位置上肾上极囊肿 13 例,肾中份囊肿 8 例,肾下极囊肿 3 例,肾孟旁囊肿 4 例;其中靠腹膜侧囊肿复发 9 例。从囊肿形态看,囊肿主体部分位于肾实质内、属于“口小底大”型囊肿 15 例。囊肿直径 > 9cm、术中囊壁切除足够但仍然复发的有 2 例。15 例囊肿复发后改行开放手术治愈,13 例囊肿复发但较手术前有明显缩小、症状缓解,予随访观察。

3 讨论

3.1 复发原因分析

单纯性肾囊肿是泌尿外科常见疾病,一般不需外科治疗。但对直径 > 4cm、有症状、继发感染或出血、继发高血压或导致肾脏集合系统压迫、甚至怀疑恶性变的肾囊肿则需要外科手术处理^[13]。既往采用的开放手术或超声引导下穿刺吸液、硬化剂注射治疗等方式多被腹腔镜手术替代,具有创伤小、术后恢复快、并发症少、疗效确切等优点^[14]。腹腔镜肾囊肿手术有经腹腔和后腹腔入路两种方式,两种方式各有优缺点。无论何种入路方式,要达到良好的疗效、避免囊肿术后复发,其中一个重要前提是切除足够囊壁,使囊肿去顶后形成一个足够宽大的窗口,保证残余囊壁分泌的囊液充分回流和吸收,也避免术后囊壁切缘粘连重新形成封闭的囊腔^[15]。本研究有 28 例复发,分析其原因主要是:(1)囊壁游离不充分,囊壁切除不够;这类复发常见于囊肿位于肾上极或肾脏腹侧患者,有 7 例,占复发病例 25.0%。由于研究病例均采用后腹腔入路,囊肿位于上极或贴近腹膜时,由于手术空间和视野有限,囊壁往往得不到充分游离,囊壁切除不够。尤其是初学者多在打开肾后筋膜后急于打开肾周脂肪囊游离囊肿,操作空间不够,囊肿的充分显露更加困难。(2)手术清除不够:主要见于“口小底大”型和肾孟旁囊肿,其复发率最高,有 15 例,占复发病例 53.6%。手术清除不够原因与囊腔位置有关。由于囊腔的主体部分位于肾实质深部,手术去除的囊盖有限、出口小,囊肿周围肾实质长期受压萎缩,术后容

易出现残余囊壁塌陷、囊壁切缘回缩和粘连,重新形成一封闭囊腔,导致囊肿复发。(3)其他原因:比如术后尿性囊肿形成误判为囊肿复发,有 2 例,占复发病例 7.1%。这与损伤囊肿临近的肾脏集合系统有关。囊肿临近的肾脏集合系统损伤后可导致术后尿性囊肿形成,在临床上可能被误判为囊肿复发^[16]。

3.2 复发的对策研究

针对不同的原因,应采取相应的措施。(1)针对不同位置的肾囊肿选择恰当的手术入路。肾囊肿腹腔镜治疗采用何种手术入路应视囊肿位置而定。比如靠近肾脏腹侧的囊肿,可以采用经腹腔入路,这样更直观,易于手术的操作;而对于靠近肾脏背侧的囊肿,应选择后腹腔入路,这样更容易游离和显露囊肿。此外,对一些较大的囊肿,在囊壁部分游离后可开小孔吸出囊液,囊壁塌陷后不要急于切除囊壁,应提起囊壁继续充分游离,从而保证足够的囊壁切除,降低术后复发率^[17]。(2)对于手术清除不够的囊肿采用预留囊壁,游离脂肪填充,钛钉固定的方法,目前国内尚少见报告。对于手术清除不够的囊肿国内也有相关报道可采用碘酒、酒精破坏囊壁,防止囊肿的复发^[18]。但本组早期病例尽管采用碘酒破坏囊壁细胞,但术后复发率极高,采用此法共做 25 例,复发为 7 例。为降低该类囊肿腹腔镜手术后的复发率,我们借鉴开放手术的经验,切除囊壁时在 2-3 个部位距肾实质边缘适当预留 1.0 cm 囊壁,游离周围肾周脂肪填充入残余囊腔后,在相应部位用钛钉将肾周脂肪固定于残余囊壁上,避免其从囊腔内滑出。通过上述处理,不仅有利于囊液的吸收、回流,也避免了囊肿出口的重新关闭,复发率大大下降,本研究类似的后期 25 例采用此法后仅复发 2 例。(3)为避免术后尿性囊肿形成等术后并发症,最重要的措施是切忌对囊底电灼或操作过程中损伤囊底。术前可留置输尿管导管,术中注射稀释美兰溶液帮助判断,如有损伤则留置双 J 管引流。亦可静脉注射靛胭脂或亚甲蓝并观察囊腔有无排蓝^[19,20]。

综上所述,腹腔镜技术是一种安全、有效的单纯性肾囊肿治疗方法。但对于肾上极和腹侧囊肿、肾孟旁囊肿及较大的肾囊肿应予以足够的重视。治疗时根据囊肿大小、形态和位置选择合理的手术入路,同时对某些技术环节合理运用和改良,有助于降低术后复发率。

参考文献(References)

- [1] Özgök Y, Ateş M, Hoşcan MB, et al. Renal cell carcinoma dwelling upon a renal cyst wall and laparoscopic management[J]. Urol J, 2014, 10(4): 1165-1167
- [2] Kumar S, Choudhary GR, Pushkarna A, et al. Percutaneous nephroscopic management of an isolated giant renal hydatid cyst guided by single-incision laparoscopy using conventional instruments: the Santosh-PGI technique [J]. Asian J Endosc Surg, 2013, 6(4): 342-345
- [3] 梁斌,何小舟,许贤林,等.经腹膜后腹腔镜去顶术治疗肾囊肿的临床分析[J].辽宁医学院学报,2011,32(6): 496-498
- [4] Liang Bin, He Xiao-zhou, Xu Xian-lin, et al. Clinical analysis of retroperitoneal laparoscopic unroofing for renal cyst [J]. Journal of Liaoning Medical University, 2011, 32(6): 496-498
- [5] Shao Q, Xu J, Adams T, Tao S, et al. Comparison of aspiration-sclerotherapy versus laparoscopic decortication in management of symptomatic simple renal cysts [J]. J Xray Sci Technol, 2013, 21(3): 419-428

- Xiong Zhi-hong, Xiong Xiang. Analysis of long-term survival rates and prognostic factors of patients with nasopharyngeal carcinoma[J]. The Journal of Practical Medicine, 2012, 28(18): 3057-3059
- [12] 杨丽华, 徐玉灿, 董铁立, 等. 超声引导下腰丛-坐骨神经阻滞在老年患者膝关节镜手术中的应用 [J]. 实用医学杂志, 2011, 27(15): 2760-2762
- Yang Li-hua, Xu Yu-can, Dong Tie-li, et al. Application of ultrasound guided lumbar plexus sciatic nerve block in the elderly patients with knee arthroscopic operation [J]. The Journal of Practical Medicine, 2011, 27(15): 2760-2762
- [13] 王志强, 黄伟, 梁熙. 关节镜下松解膝关节粘连的疗效观察 [J]. 重庆医科大学学报, 2011, 36(11): 1387-1391
- Wang Zhi-qiang, Huang Wei, Liang Xi. Arthroscopic releasing of knee stiffness[J]. Journal of Chongqing Medical University, 2011, 36(11): 1387-1391
- [14] 周崑, 周伟, 陈文直, 等. 低强度脉冲超声对美蓝渗入正常兔膝关节软骨的作用[J]. 重庆医科大学学报, 2012, 37(02): 121-124
- Zhou Kun, Zhou Wei, Chen Wen-zhi, et al. Low intensity pulsed ultrasound for promoting penetration of methylene blue into knee cartilage of normal rabbit [J]. Journal of Chongqing Medical University, 2012, 37(02): 121-124
- [15] Siparsky P, Ryzewicz M, Peterson B, et al. Arthroscopic treatment of osteoarthritis of the knee: are there any evidence-based indications? [J]. Clin Orthop Relat Res, 2007, 455:107-112
- [16] Sauerland S, Peinemann F, Rutjes AW, et al. Letter regarding "The effects of arthroscopic joint debridement in the knee osteoarthritis: results of a meta-analysis" [J]. Knee Surg Sports Traumatol Arthrosc, 2013
- [17] Koh YG, Choi YJ, Kwon SK, et al. Clinical results and second-look arthroscopic findings after treatment with adipose-derived stem cells for knee osteoarthritis[J]. Knee Surg Sports Traumatol Arthrosc, 2013
- [18] Dhawan A, Mather RC, Karas V, et al. An epidemiologic analysis of clinical practice guidelines for non-arthroplasty treatment of osteoarthritis of the knee[J]. Arthroscopy, 2014, 30(1): 65-71
- [19] Spahn G, Klinger HM, Hofmann GO. The effect of arthroscopic debridement and conservative treatment in knee osteoarthritis: Results of a 5-year follow-up and literature review [J]. Sportverletz Sportschaden, 2013, 27(4): 226-231
- [20] Sakata K, Furumatsu T, Abe N, et al. Histological analysis of failed cartilage repair after marrow stimulation for the treatment of large cartilage defect in medial compartmental osteoarthritis of the knee[J]. Acta Med Okayama, 2013, 67(1): 65-74
- (上接第 1699 页)
- [5] Eng M, Jones CM, Cannon RM, et al. Hand-assisted laparoscopic nephrectomy for polycystic kidney disease [J]. JSLS, 2013, 17(2): 279-284
- [6] Ito K, Takagi T, Kondo T, et al. Cystic local recurrence of renal cell carcinoma after laparoscopic radical nephrectomy in a hemodialysis patient[J]. Int J Urol, 2014, 21(3): 330-332
- [7] Ksiaa A, Zitouni H, Zrig A, et al. Video-assisted surgery in the management of hydatid renal cyst in children[J]. J Pediatr Surg, 2013, 48(5): 17-19
- [8] Yang D, Xue B, Zang Y, et al. A modified laparoendoscopic single-site renal cyst decortication: single-channel retroperitoneal laparoscopic decortication of simple renal cyst [J]. J Laparoendosc Adv Surg Tech A, 2013, 23(6): 506-510
- [9] Huang LH, Wen MC, Hung SW, et al. Renal tuberculosis presenting as a complicated renal cyst[J]. Urology, 2012, 80(6): e69-70
- [10] Liu YQ, Lu J, Chen M, et al. Laparoscopic nephron-sparing surgery for treatment of complex cystic renal lesions [J]. Beijing Da Xue Xue Bao, 2012, 44(5): 760-764
- [11] El-Shazly M, Allam A, Hathout B. Laparoscopic decortication of simple renal cyst with omental wadding technique:single-center experience [J]. J Laparoendosc Adv Surg Tech A, 2012, 22(9): 886-888
- [12] Chipde SS, Yadav A, Ranjan P, et al. Total laparoscopic management of a large renal hydatid cyst by using hydatid trocar cannula system [J]. J Surg Tech Case Rep, 2012, 4(1): 32-35
- [13] 师宏斌, 丁彦才, 陈福宝, 等. 腹腔镜下囊肿去顶减压术治疗成人型多囊肾疗效观察[J]. 宁夏医科大学学报, 2013, 35(7): 813-815
- Shi Hong-bin, Ding Yan-cai, Chen Fu-bao, et al. The effect observation of laparoscopic cyst decortication in treatment of adult polycystic kidney disease [J]. Journal of Ningxia Medical University, 2013, 35(7): 813-815
- [14] De Carli C, Viale A, Perez Lau F, et al. Retroperitoneal laparoscopic approach for renal hydatid cyst in children. A technical report [J]. J Pediatr Urol, 2013, 9(1): e35-38
- [15] Stucht L, Olczak-Warnat C, Winkel A, et al. The laparoscopic left-sided renal tumor enucleation with synchronous cyst removal in the right kidney without changing port positions [J]. Urologe A, 2012, 51(7): 987-990
- [16] SuryaPrakash V, Punit M, Ajit V, et al. Combined laparoscopic and percutaneous management of calcified renal hydatid cyst--a novel nephroscope- and lithotripter-assisted technique[J]. Urology, 2012, 79(6): 1407-1409
- [17] Zhang YG, Zhu G, Zhu SC, et al. Comparison of natural orifice transumbilical endoscopic surgery versus conventional laparoscopic-surgery in renal cyst deroofing[J]. National Medical Journal of China, 2012, 92(4): 276-278
- [18] Brown JA, Siddiqi K. Bilateral hand-assisted laparoscopic renal surgery in the supine position: the spleen at risk [J]. JSLS, 2011, 15(1): 27-31
- [19] Shah K, Pal B, Rizvi SJ, et al. Laparoscopic excision of a congenital seminal vesicle cyst associated with ipsilateral renalagenesis [J]. Urol Int, 2011, 87(2): 238-240
- [20] Tuncel A, Aydin O, Balci M, et al. Laparoscopic decortication of symptomatic simple renal cyst using conventional monopolar device [J]. Kaohsiung J Med Sci, 2011, 27(2): 64-67