Pathol, 1994, 4(3): 37- 47.
[2] Okamoto M, Matsumoto M, Ohtsuki T, *et al*. Internucleosomal DNA cleavage involved in ischemia-induced neuronal death [J]. Biochem Biophys Res Commun, 1993, 196(25): 1356- 1362.
[3] Pulsinelli W A, Brierley J B. A new model of bilateral in the unaneathesized rat hemispheric ischemia [J]. Stroke, 1979, 102(3): 267-271.
[4] Giovanni F, Blaustein M P. Calcium buffering and free Ca^{2+} in rat brain synaptosomes [J]. J Neurochem, 1993, 60(6): 843- 850.
[5] Li Y, Chopp M, Jiang N, *et al*. Temporal profile of *in situ* DNA fragmentation after transient middle cerebral artery occlusion in the rat [J]. J Cereb Blood Flow Metab, 1995, 15(63): 389- 397.
[6] 陈康宁,董伟为. PKC与脑缺血损伤 [J].国外医学: 内科学分册, 1996, 23(4): 164- 167.

(编辑 汪勤俭)

Experimental study on the effects of Nimotop on neuronal apoptosis

CHEN Kang-ning, DONG Wei-wei (Department of Neurology, Southwest Hospital, Third Military Medical University, Chongqing 400038)

Abstract Objective: To investigate the relationship between calcium overload and neuronal apoptosis and the role of Nimotop in treating ischemic neuronal injury. Methods: After the model of ischemia/reperfusion was established in male Wistar rats, the changes of activity of PKC and intraneuronal free calcium content were observed. Meanwhile, the effects of Dengzhanhua, the PKC inhibitor, on the two parameters was also observed. Results: Cerebral ischemia/reperfusion resulted in the increase of intraneuronal free calcium content and activation of PKC. Dengzhanhua could prevent this change. Conclusion: PKC plays an important role in ischemic neuronal injury through inducing calcium overload.

Key words calcium overload; Nimotop; cerebral ischemia/reperfusion; apoptosis

Foundation item: National Natural Science Foundation of China(39670269)

文章编号: 1000-5404(1999)12-0886-02

三孔法超声腹腔镜胆囊切除术 250例体会

Experiences of laparoscopic cholecytectomy by laproscopic ultrasonography with three hole method in 250 cases

曹 红[1],周月庆[1],彭和平[2] ([1]第三军医大学附属大坪医院肝胆外科,重庆 400042; [2]广州医学院附属第二医院,广州 510260)

腹腔镜胆囊切除术(Laparoscopic cholesystectomy, LC)具有手术时间短、生理干扰少、出血少、痛苦轻、恢复快、住院日短等优点,已得国内广大患者和医师的接受,该术式已得以普及,并经典地采用四孔操作法。我院于 1997年 12月至 1998年 8月采用以色列生产的 Sharplan超声腹腔镜系统连续对 250例患者施行三孔法 LC手术,术中常规用腹腔镜超声(Laparoscopic ultrasonography, LapUS)检查 45例,现将手术方法及结果报道如下。

作者简介: 曹 红,男, 1964.08.29生,四川省武胜县人,硕士,主治医师,主要从事肿瘤治疗方面的研究,发表论文 8篇 电话: (023)68757247

收稿日期: 1998-09-30;修回日期: 1999-07-15

1 临床资料与方法

1.1 临床资料

本组 250例中,男 71例,女 179例(男∶女= 1∶2.52),年龄 21~ 79岁(平均 51.6岁)。既往有下腹部手术史 25例,上腹部手术史 4例。伴有心肺功能异常者 25例。术后诊断胆囊结石伴慢性胆囊炎 175例,胆囊息肉 47例,胆囊结石伴急性胆囊炎 28例,其中胆囊积脓 7例,胆囊坏疽 3例。术中采用全麻 247例,硬膜外麻醉 3例。

1.2 手术方法

术前常规置胃管,全麻气管插管或硬膜外置管后患者取头

(下转 889页)

?1994-2016 China Academic Journal Electronic Publishing House. All rights reserved. http://www.cnki.net

Value of single photon-emission computed tomography in diagnosis of left ventricular function after traumatic cardiac contusion in rabbits

MIN Jia-xin, ZHU Pei-fang, WANG Zheng-guo, LIU Bao-song, WENG Ge-wen (Research Institute of Field Surgery, Daping Hospital, Third Military Medical University, Chongqing 400042)

Abstract Objective: To explore the rule of changes in the left ventricular function after traumatic cardiac contusion. Methods: The left ventricular function was investigated with single photon-emission computed tomography (SPECT) in rabbits before and at the 30th min, 1st h, 2nd h, 4th h, 6th h, 8th h and 24th h after they were inflicted with moderate to severe traumatic cardiac contusion. Results: After the contusion, the left ventricular function presented as diastolic dysfunction and slight systolic dysfunction. Conclusion: SPECT is beneficial for diagnosis of traumatic cardiac contusion.

Key words traumatic cardiac contusion; SPECT; left ventricular function; diagnosis

Foundation item: National Natural Science Foundation of China(39630330)

(上接 886页)

高足低 30°,左侧卧 40°。于脐部(多数在右缘)插入 10 mm Trocar用于置入腹腔镜,于剑下肝圆韧带右侧右肝下缘平面插入 10 mm Trocar用于置入主操作器械,于右锁中线与腋前线间肋缘下 2 cm插入 5 mm Trocar用于置入胆囊牵引钳、吸引器、造影钳等。术者及助手同位于患者左侧。手术处理胆囊管及胆囊动脉后顺逆结合剥离胆囊(以左下至右上径路顺行剥离为主)。胆囊经剑下或脐旁孔拉出。急性期及胆囊破裂者手术常规术中冲洗,大部分(95%)急性期及极少数(2%)慢性期手术术毕置放引流,术毕腹壁皮肤裂口粘合胶带拉合。

1.3 腹腔镜超声检查方法

经剑突下孔置入腹腔镜超声探头(轴直径 10 mm,长度 31 cm,频率 8 mHz),在腹腔镜视野下,将传感器直接接触脏器表面以探查肝、胆囊、肝外胆道、胰腺、腹腔淋巴结等,从而进一步确定病变性质及位置,肝外胆道检查时可于腹腔注水以增加传感器与被检器官表面的接触性,并避免加压致管道压扁造成误诊。

2 结果

250例中成功施行三孔法 LC 248例,成功率 99.2%,1例因显露困难改为四孔法完成,1例因 Calot三角结构不清,分离困难而中转开腹。平均手术时间 37 min,平均住院时间 4.5 d该组无死亡病例,1例坏疽性胆囊炎合并胆囊积脓术中腹腔污染,术后 10 d因肝下脓肿行引流术,并发症发生率 0.4%。

3 讨论

由于三孔法 LC的手术视野显露较传统 LC差,故麻醉一般采用全麻较好,若胆囊息肉、单纯胆囊结石且体瘦者也可采用硬膜外麻醉。而头高足低及左侧斜位均较传统 LC大 10°为宜,手术床左侧增加挡板及下肢与手术床固定可防止患者下斜滑落。

LapUS使传统 LC手术比开腹手术缺少触觉这一弊端得以弥补,同时还可了解脏器内部情况,对确认胆道解剖结构及毗邻关系,防止胆道损伤,发现并排除肝内外胆道结石及检出未预及病变等具有重要作用。甚至有作者认为可替代胆道造影,LapUS还可避免不必要的胆道探查。

经脐旁右缘插孔置入腹腔镜有利于术野观察(尤以 0°镜更应如此),经腹白线插入气腹针可避免腹膜松弛避让,气腹难于建立之缺点(腹壁肥厚者更明显)。常规超声检查后先剥离胆囊管右侧及后方腹膜,近胆囊分离 Carlot三角,并向上分离至胆囊体部,显露胆总管及肝总管后再离断胆囊动脉及胆囊管。不能显露三胆关系者将胆囊管上下完全空虚,确认胆囊颈与肝脏之间无结构后才能处理胆囊管。胆囊剥离原则上应顺行,从胆囊颈左侧向胆囊底右侧分离是一较好径路。若逆行剥离,可将胆囊底浆膜缝合一针经肋缘下孔牵引,防止剥离时右肝牵拉向下遮盖术野。

三孔法 LC原则上应置放胃管以减轻术中胃胀气(麻醉时气体吹入及术中反应性胀气)对术野显露的影响,术毕可拔除胃管。对于急性期及非急性期胆囊床欠干净、胆囊分破者,作者建议置放一引流管经肋缘下孔引出,12~24 h拔除。本组 1例腹腔感染者可能与腹腔冲洗后未置引流管有关。

LC手术防止损伤的重要条件是要充分显露术野及正确判断解剖结构。若麻醉效果欠佳,患者肥胖,术区粘连重,结构不清楚,不能一味追求三孔法,应加孔或中转开腹,从而避免灾难性损伤。本组三孔法手术失败率为 0.8%,并发症发生率 0.4%,比传统 LC低[1,2],急性胆囊炎中转开腹率(3.6%)也较文献报道的低[3]。

改良三孔法 LC较传统方法减少了一个孔,对病员的创伤进一步减小,术后疼痛减轻,同时也减少了一名手术助手,并降低了对唯一一名助手的要求(主要为握持腹腔镜),节省了器械费用,减少了手术斑痕。腹腔镜超声应用则为提高诊断正确率,降低手术中转率及减少并发症发生起到重要作用。因此,三孔法超声 LC具有无可比拟的优点,但同时对术者操作技巧及设备条件等方面也提出了更高要求。

关键词　腹腔镜胆囊切除术;腹腔镜超声;三孔法
中图法分类号　R605; R657.4　　文献标识码　B

参考文献

[1] Kern K A. Risk management goals involving injury to the common bile duct during laparoscopic cholecystectomy [J]. Am J Surg, 1992, 163(6): 551-553.
[2] 黄志强.腹腔镜外科与胆石病治疗的变革[J].中华外科杂志, 1993, 31(7): 387-388.
[3] 萧荫棋.腹腔镜胆囊切除术适应症选择及手术难度预测[J].中国实用外科杂志, 1994, 11(5): 643-644.

(编辑　汪勤俭)

?1994-2016 China Academic Journal Electronic Publishing House. All rights reserved.　http://www.cnki.net