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胆囊结石患者超声诊断结果漏诊及误诊分析*

蒋龚彦 朱建平 林聪平 吴仲秋 王 露

(南京军区福州总医院 福建 福州 350025)

摘要 目的:探讨我院胆囊结石患者超声诊断漏诊、误诊的超声诊断结果,并分析出现漏诊、误诊的原因。**方法:**选取我院肝胆外科经彩色多普勒超声诊断确诊并实施手术治疗的胆囊结石患者 260 例,结合临床资料分析患者彩色多普勒超声图的特点,并在术后一周进行随访,对彩色多普勒超声诊断的漏诊率及误诊率并分析原因。**结果:**1、胆囊结石分型:典型胆囊结石 167 例(64.3%)、充满型胆囊结石 50 例(19.2%)、多发性胆囊结石 28 例(10.8%)、泥沙样胆囊结石 10 例(3.8%),另外 5 例患者属非胆囊结石(1.9%);2、彩色多普勒超声确诊的 260 例胆囊结石患者经手术病理证实其中 255 例为胆囊结石,5 例为非胆囊结石(2 例为误诊,3 例为漏诊),超声诊断的准确率 98.1%。误诊、漏诊的发生与病灶部位、患者肥胖程度、仪器操作及医师经验等因素有关。**结论:**虽然彩色多普勒超声对胆囊结石的诊断率较高,但仍需完善,以减少或避免临床误诊和漏诊的发生。

关键词:胆囊石;彩色多普勒超声;误诊;漏诊

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Analysis of Misdiagnosis of Patients with Gallbladder Stone by Ultrasonography*

JIANG Gong-yan, ZHU Jian-ping, LIN Cong-ping, WU Zhong-qiu, WANG Lu

(Department of Ultrasonic, Fuzhou General Hospital of Nanjing Military Command, Fuzhou, Fujian, 350025, China)

ABSTRACT Objective: To explore the reasons of misdiagnosis of gallbladder stone disease for 260 patients by ultrasonic diagnosis.

Methods: 260 patients with gallbladder stone disease who were diagnosed by color doppler ultrasound in our hospital were selected to be the objects. Then the missed diagnosis and misdiagnosis rates of color doppler ultrasound images were compared and analyzed. **Results:** 1. A gallstone type: typical gallstone 167 cases (64.3%), 50 cases of gallstones full type (19.2%), multiple gallbladder stones in 28 cases (10.8%), 10 cases of gallbladder stones sediment samples (3.8%) the other five cases were non- gallstone patients (1.9%); 2. Color Doppler ultrasound confirmed 260 cases of gallbladder stone disease in which patients with pathologically confirmed 255 cases of gallbladder stone disease, five cases of non gallbladder stone disease (2 cases of misdiagnosis, three cases of misdiagnosis), the accuracy of ultrasound diagnosis of 98.1%. Ultrasound misdiagnosis occurred with patients the lesion site, the degree of obesity, instrument operation, physician experience and other factors. **Conclusion:** Although the high rate of color Doppler ultrasound diagnosis of gallbladder stone disease, but still improved to reduce or avoid the occurrence of clinical misdiagnosis and missed diagnosis.

Key words: Gallbladder stone; Color doppler ultrasound; Misdiagnosis; Missed diagnosis

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前言

胆囊结石是由饮食及作息时间不规律等多种原因引起的胆囊内部及胆管产生胆结石的一类肝胆外科疾病。临床表现为右上腹刺痛、痛引肩背,重者引发心绞痛,伴发热、寒颤以及不同程度的目黄、身黄。我国每年发生胆囊结石的患者高达 4900 万,约占肝胆外科疾病患者总数的 49.2%,且呈逐年增高趋势^[1-3]。胆囊结石进一步恶化会引起胆囊癌,因此临床早发现、早治疗是预防胆囊结石症恶化的关键。

彩色多普勒超声诊断仪作为多种肝胆、肠胃疾病的主要诊断仪器,被各大医疗机构所引进,也成为了胆囊结石确诊的首要依据^[4-6]。有关研究表明^[4-6],彩色多普勒对胆囊结石的漏诊误

诊原因有如下几种:操作技术不够娴熟、超声仪器陈旧,老化、患者病变部位不同以及超声医师的知识不够完善等^[7],我们认为除了上述原因之外,疾病自身的特点以及胆囊等生理结构也是一个影响超声诊断的重要原因,为了进一步研究彩色多普勒超声诊断仪对胆囊结石患者的临床诊断准确率以及漏诊误诊原因,笔者结合临床实践,对我院实施手术治疗的 260 例胆囊结石患者进行了相关研究,现报道如下。

1 资料与方法

1.1 一般资料

选取我院 2010 年 1 月 -2014 年 4 月,肝胆外科经彩色多普勒超声诊断确诊并实施手术治疗的胆囊结石患者 260 例,其

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作者简介:蒋龚彦(1973-),女,主治医师,本科,研究方向:乳腺、甲状腺、血管及腹部超声介入治疗

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中男性患者 132 例,女性患者 128 例,平均(49.2 ± 7.4)岁,病程 2-4 年。纳入标准:经彩色多普勒超声诊断确诊为胆囊结石;心、脾、肾等重要脏器无严重器质性病变;患者意识清醒;患者及家属同意参与本次实验,并签署知情通知书;本次研究由当地伦理小组全程监督。排除标准:近 2 个月接受过心脏外科手术;肾、肺等重要脏器水肿甚至器质性病变;患者意识障碍;患者家属不愿参与本次实验。

1.2 检查方法

患者入院后,次日清晨进行空腹彩色多普勒超声检查,患者取左侧卧位或仰卧位(必要时采取胸膝卧位、右侧卧位以及站立位进行检查)。将探头放置患者剑突处,向右下腹部做顺时针移动,着重观察脐旁 5 cm 处,胆囊体表投影区。采用 FILIP IE23 彩色多普勒超声诊断仪器,频率为 3.0 MHz。检查患者胆囊壁厚度、胆囊大小、胆囊形状以及胆囊内异常回声。

1.3 诊断标准

① 胆囊内无回声区出现异常的强烈回声(包括点状回声及团状回声);② 胆囊后方伴随超声影像;③ 超声影像可随患者体位的改变而发生移动;④ 若超声诊断出现不典型表现,需增加扫描平面,并由经验丰富的超声医师进行会诊,方可确诊。

1.4 术后随访

术后一周,对 260 例患者进行随访,分析其彩色多普勒超声图,计算胆囊结石患者经彩色多普勒超声诊断而产生的误诊率及漏诊率,并分析导致漏诊的相关原因。

1.5 统计学方法

采用统计学软件 SPSS 18.0 对数据进行分析,计量资料及计数资料分别进行 t 检验处理及卡方检验处理,以 $P < 0.05$ 为差异显著有统计学意义。

2 结果

2.1 超声诊断胆囊结石的分型

260 例胆囊结石患者经手术病理证实 255 例患者实属胆囊结石,其中典型胆囊结石 167 例(64.3%)、充满型胆囊结石 50 例(19.2%)、多发性胆囊结石 28 例(10.8%)、泥沙样胆囊结石 10 例(3.8%),另外 5 例患者属非胆囊结石(1.9%)。彩色多普勒超声诊断的准确率为 98.1%,可以看出胆囊结石中,典型胆囊结石所占比例较高,且发生率高于其他样结石,差异具有统计学意义, $P < 0.05$ 。见表 1、图 1。

表 1 超声诊断胆囊结石的分型

Table 1 Types of gallbladder stone diagnosed by color doppler ultrasound

	Typical	Fullfilled	Multiple	Silting	Non
n	50	167	28	10	5
Percentage(%)	64.3%*	19.2%	10.8%	3.8%	1.9%

Note: * $P < 0.05$.

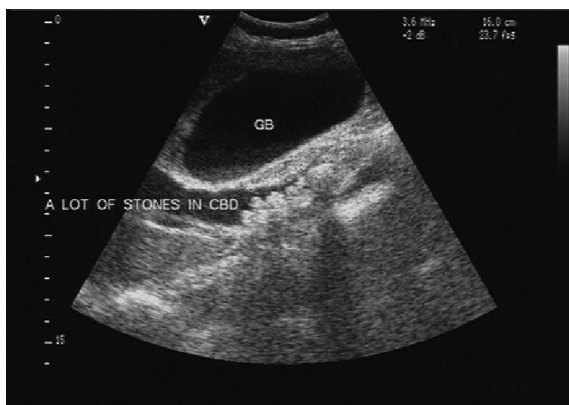


图 1 超声诊断图

Fig.1 Image of Ultrasound diagnosis

2.2 超声诊断的误诊及漏诊情况

260 例患者中,3 例漏诊患者,漏诊率为 1.2%;2 例误诊患者中,1 例超声确诊为多发性胆囊结石的患者,后经手术证实为胆囊息肉;1 例超声确诊为典型胆囊结石的患者,后经手术证实为多发性胆囊结石。3 例漏诊中,2 例结石位于胆管,1 例位于胆囊壁褶皱夹层。1 例由于患者中度肥胖,脂肪组织肥厚,影响彩色多普勒超声诊断仪的判断,导致漏诊;1 例由于胆囊萎缩,超声诊断仪未能发现胆囊结石,导致漏诊;1 例由于彩色多普勒超声诊断结果不典型,经两位超声医师会诊,未能明确结石病灶,导致漏诊。

3 讨论

随着社会的发展,人们的生活水平日益提高,越来越多的人开始重视疾病的诊断准确性。由于饮食不节、过食肥甘厚味,导致肝脏受损,体内代谢产物残留于胆囊,形成硬块,久之集为结石。胆囊结石的临床表现为腹部剧痛、高热、寒颤甚至产生不同程度目黄、身黄、小便黄。本病多发于 40 岁以上中老年人,女性多于男性。由于女性围绝经期,内分泌失调,体内各项激素水平失调,导致自身免疫及调节功能异常,进而更易引起体重过重、体质衰退等问题,这也成为中老年女性胆囊结石发病率高

于男性的主要原因。有关数据显示^[9-11],每年患胆囊结石的患者人数约为全部肝胆外科疾病的38.9%,且有4.5%的胆囊结石患者转变为胆囊癌,严重威胁患者生命^[15]。彩色多普勒超声诊断通过超声成像记录体内各脏器及组织的密度变化,通过回声发现体内异常物质,由此判断胆囊内部是否存在结石。

彩色多普勒超声诊断技术,一直以来被作为胆囊结石的首要诊断标准,但由于患者病灶部位的特异性、超声医师的医疗水平有限以及仪器操作不当等多种因素,导致部分彩色多普勒超声诊断仪的诊断结果出现误诊及漏诊^[16-19]。本实验中,经彩色多普勒超声诊断确诊的260例胆囊结石患者,经手术治疗后,发现其中255例患者实属胆囊结石,5例患者属非胆囊结石。结果表明,彩色多普勒超声诊断的误诊、漏诊率为1.9%。王娜^[12]等曾对390例疑似胆囊结石患者进行彩色多普勒超声诊断,根据诊断结果进行了手术治疗,发现其中有383例患者实属胆囊结石,7例患者属误诊、漏诊,经计算得出彩色多普勒超声诊断的准确率为98.2%,本实验中的结果与此结果基本一致,说明彩色多普勒超声诊断确实存在误诊、漏诊,但其确诊的准确率也相对较高。经术后随访分析显示,260例患者中,有2例误诊,3例漏诊患者,总漏诊率为1.2%。2例误诊患者,其中1例确诊为多发性胆囊结石的患者,后经手术治疗,发现是胆囊炎引起的胆囊息肉;1例确诊为典型胆囊结石的患者,后经手术治疗,发现片状的强回声,是由多个胆囊结石共同参与而形成的,属于多发性胆囊结石患者。3例漏诊患者,其中1例,由于患者属中度肥胖,脂肪组织肥厚,影响了彩色多普勒超声诊断仪的判断,导致漏诊;1例患者,由于胆囊萎缩,超声诊断仪未能发现胆囊结石,导致漏诊;1例患者,彩色多普勒超声诊断结果不典型,经两位超声医师会诊,未能明确结石病灶,导致漏诊。席子明^[13]等对2010年1月-2013年1月东北三省各大医院收治的胆囊结石患者进行了回访,彩色多普勒超声诊断仪确诊的胆囊结石患者的超声图像与术后患者资料比较,发现有1.2%的患者被误诊、漏诊。根据患者的一系列资料分析比较,发现误诊、漏诊的患者37%来自乡镇及社区医院,因其医疗人员的知识储备不完善以及操作方式不规范,导致患者误诊、漏诊;另外29%的患者,由于自身形体肥胖、或胆囊畸形等主观因素,导致仪器常规检测未能发现病灶,产生漏诊;其余患者,则是由于结石位于胆囊外,常规检测未触及胆管等部位,导致漏诊,这些数据与本次研究的结果相似,说明患者自身原因、医疗人员经验不足、以及仪器操作不规范等因素是导致彩色多普勒超声诊断仪误诊、漏诊的主要原因。3例漏诊患者中,有2例结石位于胆管;1例位于胆囊壁褶皱夹层。吴成爱^[14]等专家,对彩色多普勒超声诊断误诊漏诊的12例患者的病变部位进行了分析比较,发现漏诊的患者结石普遍分布于胆囊壁褶皱内、胆管以及十二指肠接口处,属于彩色大炮仪,易忽略的部位,因此产生了相应的误诊、漏诊率,这也进一步说明了,彩色多普勒超声诊断存在一定的漏诊率。以上各位专家学者的研究结果以及本次实验的分析结果都一定程度的解释了彩色多普勒超声诊断漏诊的原因,分别是患者自身肥胖、胆囊畸形、病灶部位异常以及仪器操作不当、超声医师医疗知识储备不完全、临床经验不足等。因此,应提高医疗人员的总体素质,扩大超声诊断范围,对个别疑似患者应结合临床表现等最终确诊,以此来提高胆囊结石患

者的确诊准确率^[20]。

综上所述,经彩色多普勒超声诊断仪确诊的胆囊结石患者产生误诊、漏诊的原因包括患者主观因素(形体肥胖、胆囊畸形)、仪器操作不当以及医疗人员临床经验不足、医疗知识储备不全面,还与患者的病灶部位异常有关。虽然存在一定的误诊、漏诊率,但彩色多普勒超声诊断胆囊结石的准确率高于临床诊断标准中规定的范围,因此彩色多普勒超声诊断仍是当今医疗界确诊胆囊结石的金标准,可通过改善医疗人员的总体素质、扩大监测范围、对疑似患者的症状进一步分析,最终降低误诊、漏诊率,实现零失误的理想状态。

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