

DOI: 10.13241/j.cnki.pmb.2014.06.026

# 经阴道彩超联合腹部超声在异位妊娠中的诊治分析 \*

焦 健<sup>1</sup> 宋 艳<sup>1</sup> 邹淑丽<sup>1</sup> 孟 攻<sup>1</sup> 毕晓静<sup>1</sup> 孙 红<sup>2</sup>

(1 武警山东省总队医院 山东 济南 250014; 2 哈尔滨医科大学 黑龙江 哈尔滨 150081)

**摘要 目的:**与经阴道彩超检查相比较探讨经阴道彩超联合腹部超声检查在异位妊娠中的诊治价值。**方法:**选取我院2009年3月至2012年12月之间诊治的136例疑为异位妊娠患者,其中70例经阴道彩超联合腹部超声诊断,66例经阴道彩超诊断,采用SPSS13.0统计学软件对数据进行统计学分析,所有计数资料均行 $\chi^2$ 检验,以 $P<0.05$ 为差异有统计学意义。**结果:**在70例经阴道彩超联合腹部超声检查的病例中,有68人与手术结果相符合,诊断符合率达97.10%,1例误诊,1例漏诊;在另外66例经阴道彩超检查患者中,有59例与手术结果相符合,诊断符合率为89.40%,6例误诊,1例漏诊。**结论:**经阴道彩超与经腹部超声的联合相对于经阴道彩超而言,诊断的准确率有所提高,决定这一结果的关键因素在于腹部超声减少了误诊例数。

**关键词:**异位妊娠;阴道彩超;腹部超声

中图分类号:R714, R445.1 文献标识码:A 文章编号:1673-6273(2014)06-1101-03

# Examination of Transvaginal Color Doppler Sonography Combined with Abdominal Ultrasound on the Diagnosis and Treatment of Ectopic Pregnancy\*

JIAO Jian<sup>1</sup>, SONG Yan<sup>1</sup>, ZOU Shu-li<sup>1</sup>, MENG Mei<sup>1</sup>, BI Xiao-jing<sup>1</sup>, SUN Hong<sup>2</sup>

(1 Shandong Provincial Corps Hospital of PLA, Jinan, Shandong, 250014, China;

2 Harbin Medical University, Harbin, Heilongjiang, 150081, China)

**ABSTRACT Objective:** To discuss the examination of transvaginal color doppler Sonography combined with abdominal ultrasound in the diagnosis and treatment of ectopic pregnancy. **Methods:** 128 suspicious patients with ectopic pregnancy who were taken the surgical treatment in our hospital between March 2009 to December 2012 were selected. Among them, 70 cases have been diagnosed by vaginal ultrasonography combined with the abdominal ultrasound, another 58 cases by vaginal ultrasound. Statistical analysis was recorded by the SPSS13.0 statistical software, the measurement data were calculated by the row  $\chi^2$  test, and when P was less than 0.01 that referred to the difference was statistically significant. **Results:** Among the 70 cases who were diagnosed with ectopic pregnancy by the method of vaginal ultrasonography combined with abdominal ultrasound, there are 1 error diagnosis and 1 missed diagnosis, diagnosis coincidence rate of the 70 cases was 97.10%. Among the other 66 cases who were diagnosed with ectopic pregnancy by using vaginal ultrasonography, there are 6 error diagnoses and 1 missed diagnosis, diagnosis coincidence rate of the 66 cases was 89.40%. **Conclusion:** Compared with the vaginal ultrasound, the examination of vaginal ultrasound combined abdominal ultrasound has a higher diagnosis coincidence rate, it is mainly because that the abdominal ultrasound reduces the misdiagnosis cases.

**Key words:** Ectopic pregnancy; Vaginal ultrasound; Abdominal ultrasound**Chinese Library Classification:** R714, R445.1 **Document code:** A

Article ID:1673-6273(2014)06-1101-03

## 前言

异位妊娠(ectopic pregnancy),是受精卵在子宫体腔以外的部位着床,亦称之为宫外孕(extrauterine pregnancy)。其病因众多,但主要与输卵管有关,当输卵管发生炎症,刚经历手术或发育不良时,管腔变窄,纤毛功能受损,最终导致受精卵运行不畅而在其中着床,故异位妊娠最常见的部位也是输卵管<sup>[1,2]</sup>。异位妊娠是妇产科常见急腹症,其临床症状如停经、腹痛、阴道流血等特别容易与流产、黄体破裂、急性输卵管炎、急性阑尾炎等妇产科其他常见病和腹腔疾病相混淆,诊断上的失误常常导致严重后果,一旦输卵管妊娠破裂,甚至可致孕产妇死亡。近年来超

声诊断技术不断发展,其中经阴道彩超和经腹超声是有效的诊断方法,而经阴道彩超更为精确,可有效提高异位妊娠的早期诊断率<sup>[3,4]</sup>。但目前资料缺乏对两者联合诊断的相关结论。故本文对经阴道彩超联合腹部超声对异位妊娠的诊治作探讨,结果如下:

## 1 资料与方法

### 1.1 研究对象

我院自2011年3月至2013年5月之间共收治确诊的异位妊娠患者160例,其中128例经手术治疗,效果良好。入院时70例患者为阴道彩超联合腹部超声诊断(组A),年龄在21岁

\* 基金项目:国家自然科学基金项目(81100163)

作者简介:焦健(1970-),男,本科,副主任技师,主要研究方向:超声诊断,E-mail: jiaojian0125@163.com

(收稿日期:2013-07-04 接受日期:2013-07-30)

至33岁之间,平均为 $27\pm 2$ 岁,停经40~54天,主要症状为下腹酸胀,阵发性腹痛,有57例有阴道不规则流血,36例可扪及腹部包块;58例为经阴道彩超诊断(组B),年龄在19至36岁之间,平均为 $27.5\pm 1.5$ 岁,停经37~58天,主要症状为下腹隐痛,偶尔伴有恶心呕吐,41例阴道不规则流血,28例可扪及腹部包块;其中有3例有阴道大出血及休克史,后经积极治疗后好转。两组患者表现年龄相近,症状符合多种疾病表现,仅凭临床症状难以下结论。

主要包括以下几个方面的内容<sup>[7,9]</sup>:(1)年龄19~40岁;(2)卵巢囊肿直径在4~8cm范围内,均属于单侧囊肿;(3)本组所有被选择的患者术前月经均保持正常,无激素类药物治疗史以及其他内分泌全身性疾病;(4)术后给予血清肿瘤标志物癌抗原-125(CA-125)、癌抗原(CA-199)、甲胎蛋白(AFP)以及癌胚抗原(CEA)检查确诊;(5)自愿参与手术研究者;(6)术后均复查B超未出现残留肿瘤。

## 1.2 研究方法

两组患者采用相同彩色多普勒超声诊断仪(HI VISION Preirus型)进行常规超声诊断,A组行阴道彩超联合腹部超声检查:检查应在安静舒适的条件下进行<sup>[5]</sup>,让患者尽量放松。首先是腹部超声检查,嘱咐患者充盈膀胱,取仰卧位,超声探头置于耻骨联合上方进行全方位检查,先是子宫大小,宫内是否存在孕囊,以排除宫内妊娠的诊断;之后是附件的检查,特别注意附件有无包块和其他异常回声,尽量确定包块位置,大小,与周围组织分界是否清晰等,若能发现宫内空虚,宫旁组织有低回声区低回声内部有胚芽和原始心管搏动征象,则可确诊异位妊娠<sup>[6]</sup>;腹部超声检查要同时重点注意腹腔和盆腔其他疾病的诊

断:若出现一侧附件低回声区,而回声区内无妊娠囊的存在,则要考虑黄体破裂或卵巢囊肿蒂扭转的可能;若双侧附件都出现低回声,则考虑是否有急性输卵管炎;若子宫及其附件区均未发现任何低回声,则考虑盆腔外疾病如急性阑尾炎等。腹部超声后,患者排空膀胱,行阴道彩超检查:探头涂耦合剂,套上一层避孕套,取截石位,将探头缓慢放入阴道内,全方位检查子宫及其附件区情况,此时的检查重点在于异位妊娠的位置,因为阴道超声采用高频探头,分辨率较腹部超声为高,有利于进一步确诊是否为异位妊娠以及孕囊所在位置,为手术或者是其他治疗提供相应的依据<sup>[7,8]</sup>。B组行阴道彩超检查,检查方法同上述阴道彩超检查,所得数据汇总成表格以便进一步对比分析。

## 1.3 统计学方法

采用SPSS13.0统计学软件进行统计学分析,所有计数资料均行 $\chi^2$ 检验,以P<0.05为差异有统计学意义。

## 2 结果

### 2.1 两组检测准确率对比

在70例经阴道彩超联合腹部超声检查的病例中(A组),有68人与手术结果相符合,诊断符合率达97.10%,经 $\chi^2$ 检验得出 $\chi^2=16.832$ ,P<0.05,差异有统计学意义;但仍有1例患者经手术证实为急性输卵管炎,有1例患者漏诊;在另外66例经阴道彩超检查患者中(B组),有59例与手术结果相符合,诊断符合率为89.40%,经 $\chi^2$ 检验得出 $\chi^2=13.367$ ,P<0.05,差异有统计学意义;4例误诊患者分别为2例黄体破裂,1例卵巢囊肿蒂扭转和1例急性输卵管炎,有1例患者漏诊。具体情况如表1。

Table 1 The results of two kinds of Diagnosis methods

Groups	Cases	Cases accord with the operation	Error diagnosis	Missed diagnosis	Diagnosis coincidence rate
A	70	68	1	1	97.10%*
B	66	59	6	1	89.40%

注:与B组比较,P<0.05,有显著差异。

Note: compared with group B, P<0.05.

## 2.2 两组病例异位妊娠情况

A组确诊的68例患者中,具体妊娠位置如下:输卵管壶腹部妊娠56例,输卵管峡部妊娠8例,其他部位妊娠4例(伞部

2例,宫颈1例,腹腔1例);B组确诊的59例患者中,具体妊娠位置为输卵管壶腹部妊娠46例,输卵管峡部妊娠9例,其他部位妊娠4例(伞部3例,宫颈1例)。具体情况见表2。

Table 2 The places of pregnancy of the two groups

Groups	Ampullary pregnancy	Isthmic pregnancy	Pregnancy of other places
A	56	8	4
B	46	9	5

注:与B组比较,P>0.05,无明显差异。

Note: compared with group B, P>0.05.

## 3 讨论

本文中异位妊娠患者大多数为青年女性(1组平均年龄 $27\pm 2$ 岁,2组为 $27.5\pm 1.5$ 岁),病史中大多数有导致输卵管狭窄和不畅的因素,手术时吸出妊娠产物,以输卵管壶腹部和峡部为主。手术采取经腹腔镜直视下穿刺妊娠囊,吸出囊液后注入甲氨蝶呤(45mg)。术后患者均恢复良好,无后遗症出现。

位妊娠治疗技术已比较成熟。在诊断方面,由于超声诊断技术的日益成熟和越来越多的有经验的超声科医生出现,异位妊娠的超声诊断技术已有了很大的发展<sup>[9,10]</sup>。以往的异位妊娠主要采用的是经腹部超声,当时由于经验浅,腹腔干扰因素强,诊断的符合率一度不很理想,经腹超声面临淘汰的边缘;阴道超声由于分辨率相对较高,不容易受到腹部脏器和疾病影响,成为异位妊娠超声诊断的主要手段<sup>[11,12]</sup>。然而,从本文的经阴道彩

超联合腹部超声与经阴道彩超检查异位妊娠对比中发现,经阴道彩超与经腹部超声的联合相对于经阴道彩超而言,诊断的准确率确实有了提高,而决定这一结果的关键因素在于经腹部超声减少了误诊率<sup>[13]</sup>。异位妊娠的临床表现易与许多疾病相混淆,而经腹超声的优势就在于排除性诊断:即排除黄体破裂,急性阑尾炎,急性输卵管炎,卵巢囊肿蒂扭转等等临床症状相似的一些疾病,特别是对于征象不典型者,腹部超声更有利于提高诊断效率,从而达到进一步提高诊断的符合率的效果<sup>[14,15]</sup>。我们从其中看到经阴道彩超联合腹部超声在妇科疾病中的新诊断价值。

异位妊娠主要发生在输卵管,在输卵管中尤以壶腹部最常见。异位妊娠还见于输卵管峡部,输卵管伞部,输卵管间质部,腹腔,阔韧带,卵巢等部位<sup>[16,17]</sup>。若能及时,早期确定异位妊娠的具体位置,对于患者而言价值在于及时发现,准确定位,更易于相关手术的顺利进行<sup>[18]</sup>。因此,光提高检出率还远远不够,还应进一步明确妊娠位置<sup>[19,20]</sup>。经阴道彩超联合腹部超声与经阴道彩超比较而言,两者对异位妊娠位置检出相似。此结果是由于病例组本身问题,还是检查方法的问题,则需要我们进一步探讨。

#### 参考文献(References)

- [1] Hwang JH, Lee JK, Oh MJ, et al. Classification and management of cervical ectopic pregnancies: experience at a single institution [J]. J Reprod Med, 2010, 55(11-12): 469-476
- [2] 何冠南, 杨家翔, 刘扬. 经阴道超声结合腹部加压法早期诊断宫外孕结果分析[J]. 中华医学超声杂志(电子版), 2011, 4: 847-851  
He Guan-nan, Yang Jia-xiang, Liu Yang. Analysis of transvaginal ultrasound combined with abdominal pressure for early diagnosis of ectopic pregnancy results [J]. Chinese Journal of Medical Ultrasound (electronic version), 2011, 4: 847-851
- [3] 姚宝钗, 陈端. 少见异位妊娠 27 例临床分析[J]. 中国实用妇科与产科杂志, 1997, 13: 33-35  
Yao Bao-chai, Chen Duan. Infrequent ectopic pregnancy analysis of 27cases [J]. Chinese Journal of Practical Gynecology and Obstetrics, 1997, 13: 33-35
- [4] 林春, 徐娟, 宋春辉. 妊娠合并急腹症的诊断与治疗分析[J]. 临床军医杂志, 2005, 33(6): 738-740  
Lin Chun, Xu Juan, Song Chun-hui. Analysis on Diagnosis and Treatment for Acute Abdomen during Pregnancy [J]. Clinical Journal of Medical Officer, 2005, 33(6): 738-740
- [5] Bartosch C, Brand O, Montenegro N. Cervical ectopic pregnancy: hysterectomy specimen examination clarifies the cause of first trimester pregnancy bleeding[J]. Fertil Steril, 2011, 95(3): 1091-1093
- [6] 胡建军, 赵莉. 应用腹腔镜治疗妊娠合并急腹症[J]. 中国社区医师, 2010, 28: 81  
Hu Jian-jun, Zhao Li. Celoscope cure gestation combined surgical abdomen[J]. Chinese Community Doctors, 2010, 28: 81
- [7] 宋美玉, 陈晨. 子宫特殊部位妊娠 18 例分析 [J]. 现代生物医学进展, 2011, 11(18): 3458-3460  
Song Mei-yu, Chen Chen. Analysis of 18 Cases with Uterine Ectopic Pregnancy [J]. Progress in Modern Biomedicine, 2011, 11 (18): 3458-3460
- [8] 姬宏娟, 汪龙霞, 王军燕. 超声引导下局部注射甲氨蝶呤治疗异位妊娠的临床应用[J]. 现代生物医学进展, 2012, 12(3): 476-478  
Ji Hong-juan, Wang Long-xia, Wang Jun-yan. The Clinical Application of Ultrasound-Guided Methotrexate Injection in Patients with Ectopic Pregnancy [J]. Progress in Modern Biomedicine, 2012, 12(3): 476-478
- [9] Qin M, Zhu LP, Zhang L, et al. Analysis of maternal deaths in Shanghai from 2000 to 2009[J]. Chinese Journal of Obstetrics and Gynecology, 2011, 46(4): 244-249
- [10] Oguntoyinbo AE, Aboyefi AP. Clinical pattern of gynecological/early pregnancy complaints and the outcome of pelvic sonography in a private diagnostic center in Ilorin [J]. Niger J Clin Pract, 2011, 14(2): 223-227
- [11] Marin Cantu VA, Mondragon Alcocer H, Cherem Cherem B, et al. Current state of conservative management of ectopic pregnancy [J]. Ginecol Obstet Mex, 1996, 64: 123-130
- [12] 米丽邦, 吾其坤. 妊娠合并急腹症 54 例临床分析 [J]. 中华中西医杂志, 2010, 10: 15-18  
Mi Li-bang, Wu Qi-kun. Clinical analysis for 54 gestation combined surgical abdomen [J]. China and foreign medical journal, 2010, 10: 15-18
- [13] Song MJ, Moon MH, Kim JA, et al. Serial transvaginal sonographic findings of cervical ectopic pregnancy treated with high-dose methotrexate[J]. Ultrasound Med, 2009, 28(1): 55-61
- [14] Dart R, Ramanujam R, Dart L. Progesterone as a predictor of ectopic pregnancy when the ultrasound is indeterminate[J]. Am J Emerg Med, 2002, 20(7): 575-579
- [15] Barthel S, Chowdhury T, Miedema BW. Endoscopic sphincterotomy for the treatment of gall stone pancreatitis during pregnancy [J]. Surg Endosc, 1998, 12(5): 394
- [16] 言齐, 罗瑞珍, 刘敏. 妊娠合并急腹症的诊治体会 [J]. 临床和实验医学杂志, 2006, 5(3): 246-247  
Yan Qi, Luo Rui-zhen, Liu Min. Make a diagnosis and give treatment taste of gestation combined surgical abdomen [J]. Journal of Clinical and Experimental Medicine, 2006, 5(3): 246-247
- [17] Fauconnier A, Mabrouk A, Salomon L J, et al. Ultrasound assessment of haemoperitoneum in ectopic pregnancy: derivation of a prediction model[J]. World J Emerg Surg, 2007, 2: 23-29
- [18] Martínez-Varea A, Hidalgo-Mora JJ, Payá V, et al. Retroperitoneal ectopic pregnancy after intrauterine insemination [J]. Fertil Steril, 2011, 95(7): 2433.e1-3
- [19] 张繁荣. 异位妊娠 190 例临床分析[J]. 当代医学, 2010, 16(28): 77  
Zhang Fan-rong. Clinical analysis for ectopic pregnancy: 190 cases[J]. Contemporary Medicine, 2010, 16(28): 77
- [20] 袁志仙, 高萍. 彩色多普勒血流成像检测妊娠黄体血流对异位妊娠的诊断价值[J]. 海军医学杂志, 2010, 3: 227-228  
Yuan Zhi-xian, Gao Ping. Diagnose value of color Doppler now image detect corpus luteum graviditatis blood stream to ectopic gestation[J]. 2010, 3: 227-228