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经阴道超声与宫腔镜对子宫内膜病变患者的诊断价值比较研究*

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摘要 目的:探讨经阴道超声与宫腔镜检查诊断子宫内膜病变的临床价值,为临床诊断子宫内膜病变提供理论依据。**方法:**选取2011年3月-2014年3月间我院收治的158例疑似子宫内膜病变患者,分别采用经阴道超声和宫腔镜进行检查,并以病理诊断结果为“金标准”,比较两种检查方法的诊断价值。**结果:**病理检查结果中,143例患者被确诊为子宫内膜病变,其中子宫内膜增生23例(16.08%),子宫内膜息肉31例(21.68%),子宫粘膜下肌瘤24例(16.78%),子宫内膜癌19例(13.29%),慢性非特异性子宫内膜炎46例(32.17%)。宫腔镜对子宫内膜病变诊断的准确率为94.41%,高于阴道超声的81.12%,差异有统计学意义($P<0.05$),其中阴道超声和宫腔镜对子宫粘膜下肌瘤、子宫内膜癌诊断的准确率比较差异无统计学意义($P>0.05$),阴道超声对子宫内膜增生、子宫内膜息肉及慢性非特异性子宫内膜炎的诊断准确率均较宫腔镜降低,差异有统计学意义($P<0.05$)。阴道超声对子宫内膜病变诊断的特异度较宫腔镜更低($P<0.05$),但两者灵敏度、AUC比较差异无统计学意义($P>0.05$)。**结论:**经阴道超声诊断子宫内膜病变简单、有效,而宫腔镜诊断子宫内膜病变具有准确率以及特异度较高的特点。

关键词: 阴道超声;宫腔镜;子宫内膜病变;诊断价值

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Comparative Study of Transvaginal Ultrasonography and Hysteroscopy in Diagnosis of Endometrial Lesions*

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ABSTRACT Objective: To investigate the clinical value of transvaginal ultrasonography and hysteroscopy in the diagnosis of endometrial lesions, to provide a theoretical basis for the clinical diagnosis of endometrial lesions. **Methods:** A total of 158 cases of suspected endometrial lesions, who were treated in Beijing First Hospital of Integrated Chinese and Western Medicine from March 2011 to March 2014, were selected and were detected by transvaginal sonography and hysteroscopy respectively. The diagnostic value of the two methods was compared with the results of pathological diagnosis as the gold standard. **Results:** In the results of pathological examination, 143 patients were diagnosed as endometrial lesions, including 23 cases of endometrial hyperplasia (16.08%), 31 cases of endometrial polyps (21.68%), 24 cases of uterine submucosal myoma (16.78%), 19 cases of endometrial carcinoma (13.29%), 46 cases of chronic nonspecific endometritis (32.17%). The accuracy rate (94.41%) of hysteroscopy in the diagnosis of endometrial lesions was higher than that (81.12%) of transvaginal ultrasound, and the difference was significant ($P<0.05$); there were no statistical differences in the accuracy rate of the diagnosis of submucosal myoma of uterus and endometrial carcinoma between transvaginal ultrasonography and hysteroscopy ($P>0.05$), and the accuracy rate of transvaginal ultrasound in endometrial hyperplasia, endometrial polyps and chronic nonspecific endometritis was lower than that of hysteroscopy, and the difference was statistically significant ($P<0.05$). The specificity of transvaginal ultrasonography in the diagnosis of endometrial lesions was lower than that of hysteroscopy ($P<0.05$), but there were no significant differences in sensitivity and AUC between the two methods ($P>0.05$). **Conclusion:** Transvaginal ultrasonography is a simple and effective method in diagnosis of endometrial diseases, and Hysteroscopy has higher accuracy and higher specificity in diagnosis of endometrial diseases.

Key words: Transvaginal ultrasonography; Hysteroscope; Endometrial lesion; Diagnostic value

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前言

子宫内膜病变是常见的妇女恶性肿瘤之一,多发于绝经妇

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女,临床表现主要有月经失调、白带增多、不规则的子宫出血,部分患者还伴有下腹痛等,其发病率一直居高不下,严重危害妇女的健康^[1,2]。早期及时、正确的诊断和治疗是有效地改善患者预后、提高患者生活质量最有效的方法。经阴道超声因具有简单、无创等特点而成为目前临床诊断子宫内膜病变重要的辅助诊断手段,但是研究显示,经阴道超声诊断后常出现患者漏诊的情况,从而延误了对病情的治疗^[3-5]。随着宫腔镜技术的逐渐完善成熟,宫腔镜检查逐渐被用于妇科疾病的诊断,通过宫腔镜可以直观的观察子宫内膜的病变,同时还可以清晰的看到内膜活组织,进而对内膜活组织的活检具有指引作用,因而提高了其诊断的准确率^[6,7]。本研究通过对阴道超声和宫腔镜检查对子宫内膜病变的诊断价值进行对比分析,旨在为临床提供数据参考。

1 资料与方法

1.1 一般资料

选择 2011 年 3 月 -2014 年 3 月间我院妇科门诊收治的疑似子宫内膜病变患者作为研究对象,共 158 例,纳入标准^①:①具有子宫内膜病变典型的临床表现;②已婚妇女;③不合并有其他可能影响本研究结果的疾病,如子宫颈病变等;④符合医学伦理学要求;⑤患者知情同意,并签署知情同意书。排除标准:⑥伴有严重心、肝、肾等重要脏器功能障碍者;⑦因其他因素(外伤、药物替代治疗等)引起的阴道出血者。年龄 23~67 岁,平均(46.3±10.8)岁;孕次 1~3 次,平均(1.5±0.2)次;病程 3 个月~7 年,平均(1.5±0.6)年。其中绝经者 104 例,未绝经者 54 例。

1.2 方法

分别采用经阴道超声和宫腔镜对疑似病例进行检查,最后在宫腔镜引导下对病变区域的内膜组织进行活检。经阴道超声检查方法:采用 GE VolusonE8 彩超诊断仪(美国 GE 公司)(频率 5.0~7.5 MHz)对疑似病例进行检查,月经期以外的患者在排空小便后取膀胱结石位仰卧于诊断台上,将耦合剂涂在阴道探头上后用乳胶套进行隔离,然后将其从横、纵、斜三个方向对宫颈部位进行探查,分别检查子宫的大小、形态、位置等,同时着

重检查内膜病变部位的以上情况。宫腔镜检查方法:采用直径为 4.5 mm 的 STORZ 宫腔镜检查镜(德国 STORZ 公司),首先用消毒液对患者会阴部和阴道进行常规消毒,后采用 5%的葡萄糖溶液作为膨宫介质灌入灌流系统以扩张宫颈,然后将宫腔镜插入宫颈以检查宫腔、内膜组织病变等的情况(检查内容同经阴道超声),同时对病变部位的内膜组织进行活检。

1.3 评价标准

阴道超声检查结果子宫内膜病变参照《经阴道超声诊断仪》中的标准^②;宫腔镜检查结果参照《妇科内镜学》中的标准^③;病理检查结果参照《现代诊断病理学》中关于子宫内膜病变的诊断标准^④。最后由 2 名以上主治医师对病理学组织的诊断结果作为“金标准”,比较阴道超声和宫腔镜检查的诊断价值。

1.4 统计学处理

采用 SPSS 22.0 软件对数据进行统计分析。两种检查方法的准确率、灵敏度、特异度等计数资料采用率(%)表示,采用 χ^2 检验。患者年龄、孕次、病程等计量资料以均数±标准差($\bar{x} \pm s$)表示,采用 t 检验。两法诊断价值的评价采用 ROC 分析。检验水准 $\alpha=0.05$ 。

2 结果

2.1 病理学活检结果

158 例疑似病例经病理活检被确诊为子宫内膜病变者 143 例,其中子宫内膜增生 23 例(16.08%),子宫内膜息肉 31 例(21.68%),子宫粘膜下肌瘤 24 例(16.78%),子宫内膜癌 19 例(13.29%),慢性非特异性子宫内膜炎 46 例(32.17%)。

2.2 阴道超声与宫腔镜检查对子宫内膜病变不同类型的诊断结果

宫腔镜对子宫内膜病变诊断的准确率为 94.41%,高于阴道超声的 81.12%,差异有统计学意义($P<0.05$)。其中阴道超声对子宫内膜增生、子宫内膜息肉及慢性非特异性子宫内膜炎的诊断准确率均较宫腔镜降低,差异有统计学意义($P<0.05$)。两种方法对子宫粘膜下肌瘤、子宫内膜癌诊断准确率比较差异无统计学意义($P>0.05$)。见表 1。

表 1 阴道超声及宫腔镜对子宫内膜病变的诊断价值(n,%)

Table 1 Diagnostic value of transvaginal ultrasonography and hysteroscopy in endometrial lesions(n,%)

Lesion type	Pathologic diagnosis(cases)	Transvaginal ultrasound		Hysteroscope		χ^2	P
		Exact number	Accuracy rate	Exact number	Accuracy rate		
Endometrial hyperplasia	23	16	69.57	22	95.65	5.447	0.020
Endometrial polyp	31	23	74.19	29	93.55	4.292	0.038
Submucous myoma of uterus	24	22	91.67	21	87.50	0.223	0.637
Endometrial carcinoma	19	17	89.47	18	94.74	0.362	0.547
Chronic nonspecific endometritis	46	38	82.61	45	97.83	6.035	0.014
Total	143	116	81.12	135	94.41	11.753	0.001

2.3 阴道超声与宫腔镜检查对子宫内膜病变诊断价值的 ROC 曲线分析

将各法所得诊断结果资料按首次即排除或确诊、疑似后再排除或确诊、多次排除或确诊划分为 3 个自然组段, 进行 ROC 分析。所得结果见表 2。阴道超声的 ROC 分析曲线见图

1, 宫腔镜检查的 ROC 分析曲线见图 2。

阴道超声的特异度低于宫腔镜检查, 差异有统计学意义 ($P < 0.05$), 阴道超声的灵敏度及 ROC 曲线下面积 AUC 均略低于宫腔镜检查, 但差异无统计学意义 ($P > 0.05$)。

表 2 阴道超声与宫腔镜诊断子宫内膜病变的临床价值(%)

Table 2 Clinical value of transvaginal ultrasonography and hysteroscopy in diagnosis of endometrial diseases(%)

Inspection method	AUC	Sensitivity	1-specificity	Specificity	Positive predictive value	Negative predictive value
Transvaginal ultrasound	0.8852	89.53	26.67	73.33	93.16	69.85
Hysteroscope	0.9271	92.26	7.43	92.57	94.12	90.50
$\chi^2(Z)$	(1.561)	3.062	-	5.185	-	-
P	0.119	0.069	-	0.032	-	-

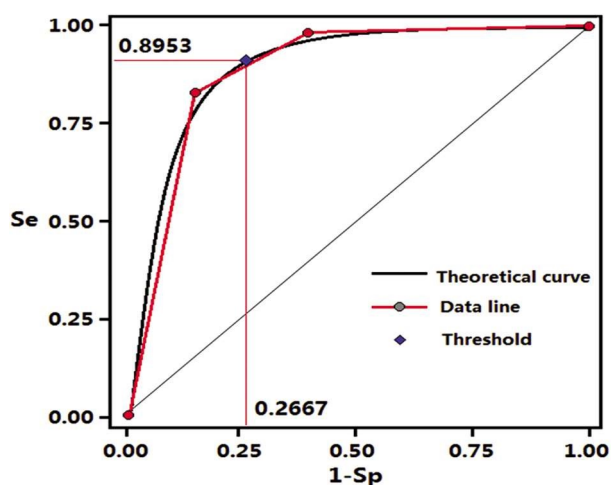


Fig.1 ROC curve of transvaginal ultrasound in diagnosis of endometrial diseases

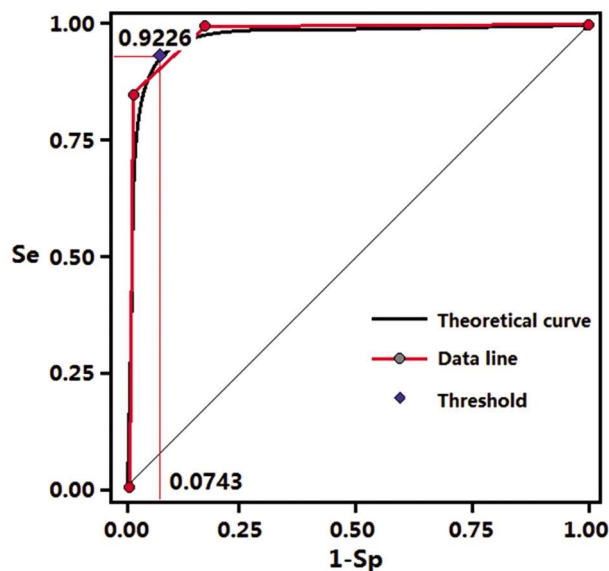


Fig.2 ROC curve of hysteroscopy in diagnosis of endometrial diseases

3 讨论

随着女性在现代社会发展发挥着越来越重要的作用, 其生活压力也随着增大, 从而使得子宫内膜病变等妇科疾病发病率呈逐渐上升趋势, 对患者的健康造成严重的影响^[11,12]。研究表明, 对子宫内膜病变进行及时有效的诊断和治疗, 可以明显缓解症状, 改善病情^[13,14]。近年来, 经阴道超声和宫腔镜检查逐渐被用于临床辅助诊断妇科疾病, 两种检查方法各有其特点, 其中阴道超声使用的仪器探头较小并且灵活, 能够从不同角度和深度对检查部位进行探查, 从而可清晰地显示病灶的部位以发现病变的详细情况, 同时阴道超声还具有无创、高分辨率等特点^[15-17]。但是临床报道也显示, 阴道超声由于不能探查到病变范围极小的组织以及宫角处的病变, 因而在诊断过程中常会发生漏诊情况^[18,19]。宫腔镜检查作为临床辅助诊断妇科疾病的重要手段, 其能够探查宫腔内部细微的病变范围, 并且可在宫腔镜下取出病变组织进行活检以确诊, 因此, 它的准确率较高^[20-22]。但是宫腔镜检查较阴道超声而言, 并不能带来更多的信息, 而

且也可能给患者带来一定的创伤。

本研究结果显示, 158 例疑似病例中共有 143 例经病理组织学确诊为子宫内膜病变, 其中子宫内膜增生 23 例 (16.08%), 子宫内膜息肉 31 例 (21.68%), 子宫粘膜下肌瘤 24 例 (16.78%), 子宫内膜癌 19 例 (13.29%), 慢性非特异性子宫内膜炎 46 例 (32.17%), 阴道超声对子宫内膜病变诊断的准确率为 81.12%, 低于宫腔镜诊断的 94.51%, 说明宫腔镜诊断子宫内膜病变更具有优势, 与有关研究结果一致^[23]。这可能与宫腔镜能探查子宫内组织病变范围较小的部位并进行准确诊断有关。阴道超声对子宫内膜增生的准确率为 69.57%, 低于宫腔镜的 95.65%, 可能是因为内膜增生的厚度不足, 因而通过阴道超声不能有效地发现^[24]。结果还表明, 阴道超声对子宫内膜息肉的准确率为 74.19%, 低于宫腔镜的 93.55%, 说明阴道超声对子宫内膜息肉的诊断准确率低于宫腔镜, 可能原因是: ①分泌期的内膜组织掩盖了直径小于 1 cm 的病变, 致使阴道超声不能及时有效地探查清楚; ②子宫腔可能因为子宫肌瘤或者子宫腺肌瘤而变形, 因而阴道超声没有能够显示; ③患者进行激素

治疗后,可能导致内膜组织出现息肉样的生长,以致不能与真性息肉进行对比而导致误诊^[25-27]。阴道超声对慢性非特异性子宫内膜炎的准确率为 82.61%,低于宫腔镜的 97.83%,可能是因为阴道超声下的慢性非特异性子宫内膜炎声像图没有特异性的改变,因此导致阴道超声不能及时发现^[28]。阴道超声对子宫粘膜下肌瘤、子宫内膜癌的诊断准确率分别为 91.68%、89.47%,与宫腔镜诊断准确率的 87.50%、94.74%无明显差异,说明两者对子宫粘膜下肌瘤和子宫内膜癌都可以有很好的诊断效果^[29]。阴道超声对子宫内膜病变诊断的特异度较宫腔镜更低($P<0.05$),但两者灵敏度、AUC 比较差异无统计学意义($P>0.05$),与有关研究结果一致^[30]。

综上所述,宫腔镜检查诊断子宫内膜病变具有较高的准确率和特异度,而经阴道超声则在操作上具有简单、无创等特点,因此在临床实践中视实际情况应用才能达到较好的效果。

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