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脐血管前置产前超声表现及临床效果分析 *

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摘要 目的：研究脐血管前置产前超声表现及临床效果。**方法**：回顾性分析 2017 年 1 月至 2018 年 12 月期间本院收治的 34 例脐血管前置孕妇临床资料，均进行产前超声检查，将结果与产后病理结果进行比较，分析超声表现。**结果**：同产后病理检查结果相比较，34 例孕妇的产前超声诊断准确率、误诊率分别为 97.06%、2.94%，数据对比差异无统计学意义（*P*>0.05），产前超声检查显示的胎盘及脐带入口情况主要为帆状胎盘、脐带胎盘边缘附着、边缘性前置胎盘、低置性前置胎盘、副胎盘等。**结论**：产前超声检查具有较高的脐血管前置诊断准确率，可为临床分娩结局的改善提供指导，适合推广应用在临床中。

关键词：脐血管前置；产前；超声检查
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Prenatal Ultrasound Findings and Clinical Analysis of Umbilical Vessel Previa*

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ABSTRACT Objective: To study the prenatal ultrasonographic manifestations and clinical effects of umbilical artery previa. **Methods:** The clinical data of 34 pregnant women with umbilical artery previa admitted to our hospital from January 2017 to December 2018 were analyzed retrospectively. All prenatal ultrasound examinations were performed. The results were compared with the pathological results after delivery, and the ultrasonographic manifestations were analyzed. **Results:** Compared with the results of postpartum pathology, the accuracy and misdiagnosis rate of prenatal ultrasonography in 34 pregnant women were 97.06% and 2.94%, respectively. There was no significant difference between the data(*P*>0.05). Prenatal ultrasonography showed that the main conditions of placenta and umbilical cord entrance were sail placenta, umbilical cord placenta marginal attachment and marginal anterior placenta. Placenta, low placenta previa, accessory placenta, etc. **Conclusion:** Prenatal ultrasonography has a high accuracy in prenatal diagnosis of umbilical vessels, which can provide guidance for the improvement of clinical delivery outcomes and is suitable for clinical application.

Key words: Umbilical vessel preposition; Prenatal; Ultrasonography
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前言

脐血管前置是指胎膜血管出现在胎儿先露前方接近或跨越宫颈内口的疾病，主要是由绒毛发育异常所引起的。随着时间的推移，机体宫颈会变大，呈持续性的状态压迫前置血管[1,2]，导致胎膜早破、胎儿窘迫的发生。脐血管前置为围产儿死亡的重要危险因素[3-5]，早期诊断并及时采取有效的干预措施，对于改善分娩结局、提高围产儿存活率具有重要的意义[6-8]。临床用于诊断脐血管前置的方法主要为实验室检查、羊膜镜检查、超声检查，其中以超声检查的应用时间最长且取得了一定的效果，本文对产前超声检查应用在脐血管前置诊断中的效果及超声表现进行分析。

1 资料和方法

1.1 一般资料回顾性分析

本院接收的 34 例脐血管前置孕妇，病例选取时间：2017 年 1 月至 2018 年 12 月。回顾性分析孕妇的临床资料，其中，年龄为 22 岁至 46 岁，年龄平均值(34.52± 3.69)岁。孕周为：23 周至 36 周，平均孕周为 27.76 周。产前入院概况：无痛性阴道流血 9 例，胎盘位置异常 8 例，胎盘异常 2 例，血糖高 5 例，胎位及胎盘位置异常、见红 1 例，停经、血管位置异常 1 月、下腹坠胀 4 h 1 例，停经及发现脐带血流位置异常 1 例，停经及胎儿小 1 例，胎动异常 3 例，阴道流水 3 例。所有孕妇的分娩方式均为子宫下段剖宫产。

纳入标准：所有孕妇均存在停经情况，均在本院进行产前超声检查，均为单胎妊娠，产后病理检查均证实存在脐血管前置。

排除标准：存在家族遗传性疾病的孕妇；存在多胎妊娠或

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妊娠并发症的孕妇;存在胎儿染色体异常、胎儿先天性畸形、羊水量异常的情况;存在其他可引起胎盘功能障碍疾病的孕妇。

1.2 仪器及检查方法

产前超声检查方法：仪器选择 FHILTPS IU22、Acuson Sequoia 512、PHILIPSHD15 等彩色超声诊断仪，腹部探头 3.5~5.0MHz。检查前叮嘱孕妇多饮水以适度充盈膀胱,取平卧位,对脐带、胎盘连接处、脐血管分布情况进行重点检查,从横切面、纵切面扫查宫颈内口上方,并叠加彩色多普勒血流显像,对胎儿先露部前方、宫颈内口及周围是否存在血管横跨现象进行观察，同时应用彩色多普勒检测横跨血管的血流频谱情况,了解横跨血管性质。针对可疑病例,可加行经会阴超声检查。

1.3 评价指标及判定标准

(1)产后病理检查为金标准,分析诊断准确率。

(2)对比不同检查方式的胎盘及脐带入口情况。

1.4 统计学处理

采用 SPSS 21.0 统计软件进行分析。组内对比采取配对 t 检验,组间对照采用独立样本 t 检验,计数资料用 x^2 检验,等级资料用秩和检验,P<0.05 表示差异有统计学意义。

2 结果

2.1 超声检查和产后病理检查结果的比较

34 例孕妇中,33 例孕妇的产前超声诊断结果与产后病理检查结果相符合，诊断准确率为 97.06%(33/34),1 例中央性前置胎盘被产前超声误诊为边缘性前置胎盘合并血管前置,误诊率为 2.94%。两种检查方式相比较无显著差异(P>0.05)。见表 1 所示：

表 1 对比超声检查和产后病理检查结果(例,%)

Table 1 Comparison of ultrasonic examination and postpartum pathological examination results(n, %)

Check the way	Accuracy		The misdiagnosis rate	
	n	The proportion	n	The proportion
Ultrasound	33	97.06	1	2.94
Pathological examination	34	100.00	0	0.00
x^2 value	1.015		1.015	
P value	0.314		0.314	

2.2 不同检查方式胎盘及脐带入口情况的比较

产前超声检查的胎盘及脐带入口情况与产后病理检查结果相比差异不显著(P>0.05),其中以帆状胎盘合并脐血管前置的检出率最高。如表 2 所示：

表 2 比较不同检查方式的胎盘及脐带入口情况[n(%)]

Table 2 Comparison of placenta and umbilical cord intakes in different examination methods[n(%)]

Check the way	n	Umbilical cord placental margin attached	The sail of the placenta Umbilical cord entry	Lobed placenta	Low placenta previa	The deputy of the placenta	Partial front tire	Marginal front tire	Central front tire
Ultrasound	34	5(14.71)	14(41.18)	1(2.94)	5(14.71)	2(5.88)	2(5.88)	5(14.71)	0(0.00)
Pathological examination	34	5(14.71)	14(41.18)	1(2.94)	5(14.71)	2(5.88)	2(5.88)	4(11.76)	1(2.94)
x^2 value	-	0.001	0.001	0.001	0.001	0.001	0.001	0.128	1.015
P value	-	1.000	1.000	1.000	1.000	1.000	1.000	0.720	0.314

2.3 超声表现

典型的超声图像特征为:孕妇宫颈内口上方横切面、纵切面分别为圆形无回声、条管状无回声,沿宫颈内口向上走行或沿胎盘表面走形,位置较为固定。通过叠加彩色多普勒和频谱多普勒识别是否横跨血管为脐血管,从而明确诊段。

3 讨论

胎盘是支持胎儿生长发育的最重要器官，正常情况下，90%左右的脐带附着于胎盘正中或旁正中[9,10]。脐带是胎儿和胎盘之间的连系结构,通过胎盘绒毛上皮的渗透作用,胎儿血液与绒毛间隙内母体血液之间进行物质交换[11-13],当绒毛发育异常时,会出现脐血管前置现象,导致血管破裂,对母体无损害,但会危及胎儿生命安全。脐血管前置是产科疾病中较为少见[14-16],发病率较低,孕妇在产前无特异性的明显症状,以妊娠中晚期的无痛性阴道流血为主要临床特征[17],产前二维声像图难以检测到脐血管前置,且容易与前置胎盘、胎盘早剥以及见红等征兆相混淆。孕中期产前系统超声筛查是诊断孕妇是否存在脐血管前置的最佳时机,因此本次研究中,大部分孕妇均在孕中期产前超声系统筛查时被检出存在脐血管前置现象，不在早孕期、妊娠晚期进行检测的原因在于,早孕期胎儿体积非常小,对胎盘及脐带的入口情况无法进行清楚地判断,而妊娠晚期受到胎儿身体、羊水量等诸多因素的影响[19],也无法较好地判断胎盘及脐带的入口情况。脐血管前置会导致前置血管破裂,围产

儿的死亡率高达 75%以上[18],且与多种不良妊娠结局存在相关性,因此为改善妊娠结局以及围产儿预后,产前准确诊断十分重要,便于选择合适的时机通过剖宫产的方式终止妊娠。

目前临床最常用的脐血管前置诊断方法为产前超声检查,其应用在多种妊娠疾病诊断中具有较高的检出率,能够对胎儿的发育状况、是否存在畸形发育进行观察和判断。常规二维超声难以准确判断脐带入口处,而彩色多普勒超声技术通过规范化、系统的检查能够较好地明确脐带入口处、宫颈内口等情况,且通过观察血流信号能够获取胎儿脐动脉的频率以及判断脐带血管走行[19],有助于临床明确脐带同宫颈内口的关系。胎盘发育异常及脐带入口异常为血管前置发生的重要影响因素,在脐血管前置的诊断过程中,应对脐带帆状附着、脐带胎盘边缘附着、副胎盘等进行识别,针对可能伴发血管前置的情况密切注意,防止漏诊[20]。

本文研究数据显示,对 34 例孕妇进行产前超声检查,同产后病理检查结果相比较,脐血管前置诊断准确率为 97.06%,误诊率较低,且能够准确判断胎盘分布位置,提示产前超声检查的可靠性高。另外帆状胎盘最常合并脐血管前置,其会引起胎盘异常并对胎儿生长发育产生不利影响,同时还会导致胎儿宫内窘迫、死产、新生儿死亡等不良结局出现。

总而言之,产前超声检查有助于提高脐血管前置检出率,可对临床干预提供指导,有利于改善妊娠结局和降低围产儿死亡率。

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