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麦角新碱联合欣母沛预防高危产妇产后出血临床效果及对子宫复旧的影响

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[摘　要]　**目的：**探讨麦角新碱联合欣母沛预防高危产妇产后出血临床效果及对子宫复旧的影响。**方法：**选取2018年1月至2020年10月在锦州市妇婴医院和锦州医科大学附属第一医院分娩的高危产后出血产妇200例，采用随机数表法分为对照组和试验组，每组100例。对照组给予缩宫素与麦角新碱治疗，试验组在对照组基础上联合欣母沛治疗。对比两组产后出血量和出血率、血流动力学参数、凝血功能指标、药物不良反应和子宫复旧情况。**结果：**试验组产妇产后2 h出血量、24 h出血量、止血完全时间、产后出血率、产后血红蛋白下降≥30 g/L的比例和输血率均显著低于对照组(P<0.05)。产后24 h，试验组舒张压(diastolic blood pressure，DBP)和收缩压(systolic blood pressure，SBP)均显著低于对照组，心率(heart rate，HR)显著高于对照组(P<0.05)。试验组和对照组产妇药物不良反应发生率分别为12.00%、9.00%，差异无统计学意义(P>0.05)。试验组和对照组产妇分娩42 d后，恶露持续时间、宫底高度、宫腔积血率、子宫复旧不良率差异均无统计学意义(P>0.05)。**结论：**麦角新碱联合欣母沛可减少高危产妇产后出血量、血红蛋白下降率和输血率，在预防高危产妇产后出血方面效果较好。

[关键词]　产后出血；欣母沛；麦角新碱；子宫复旧；凝血功能；高危产妇

Clinical effects of ergonovine combined with hemabate on the prevention of postpartum hemorrhage and its influences on uterine involution in high-risk puerperae

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Abstract　**Objective:** To explore the clinical effects of ergonovine combined with hemabate on the prevention of postpartum hemorrhage and its influences on uterine involution in high-risk puerperae. **Methods:** A total of 200 high-risk

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puerperae with postpartum hemorrhage who underwent delivery in the hospital from January 2018 to October 2020 were enrolled. According to random number table method, they were divided into control group (oxytocin and ergonovine) and experimental group (hemabate on the basis of the control group), 100 cases in each group. The postpartum blood loss and bleeding rate, hemodynamic parameters, coagulation function indexes, adverse drug reactions and uterine involution were compared between the two groups. **Results:** The blood loss at 2 h and 24 h after delivery, complete hemostasis time, postpartum hemorrhage rate, proportion of postpartum hemoglobin decreasing not lower than 30 g/L and blood transfusion rate in experimental group were significantly lower than those in control group (P<0.05). At 1d after delivery, diastolic blood pressure (DBP) and systolic blood pressure (SBP) in experimental group were significantly lower than those in control group, while the heart rate (HR) was significantly higher than that in control group (P<0.05). There was no significant difference in the incidence of adverse drug reactions between experimental group and control group (12.00% vs 9.00%) (P>0.05). At 42 d after delivery, there were no significant differences in duration of lochia, height of uterine fundus, uterine hemorrhage rate and poor rate of uterine involution between the two groups (P>0.05). **Conclusion:** Ergonovine combined with hemabate can reduce postpartum blood loss, hemoglobin decrease and blood transfusion rate of high-risk puerperae, and has good effects on the prevention of postpartum hemorrhage.

Keywords postpartum hemorrhage; hemabate; ergonovine; uterine involution; coagulation function; high-risk puerperae

产后出血是最严重的分娩并发症之一，产妇分娩后24 h内出血量≥500 mL将影响其全身组织血供，若病情持续发展，将威胁其生命[1-2]。目前观点认为产妇生产后宫缩乏力、产道裂伤是引发产后出血的关键，因此预防措施一般围绕加强子宫收缩来展开[3-4]。麦角新碱是一种常用药，可直接作用于子宫平滑肌，药效长但对高血压心脏病患者禁用，在临床上使用受到限制。欣母沛即卡前列素氨丁三醇，能显著增加子宫平滑肌钙浓度、子宫收缩频率和收缩幅度，起止血的作用[5-6]。本研究联合麦角新碱和欣母沛预防高危产妇产后出血，取得较好疗效。

1 对象与方法

1.1 对象

选取2018年1月至2020年1月在锦州市妇婴医院和锦州医科大学附属第一医院分娩的高危产后出血产妇200例，采用随机数表法分为对照组和试验组，每组100例。纳入标准：1)于锦州市妇婴医院和锦州医科大学附属第一医院进行阴道分娩；2)单胎，足月妊娠；3)至少符合年龄≥35岁、不良妊娠史、瘢痕子宫、妊娠合并症、胎位不正之中一项高危因素。本研究经医院伦理委员会审批，产妇及其家属签署知情同意书。排除标准：1)有肝、肾等器质性病变；2)多胎妊娠；3)对本研究所用药过敏；4)有药物过敏史；5)有智力或精神障碍者，不能判断自身症状者；6)合并自身凝血功能障碍、免疫系统疾病；7)B超提示胎儿发育异常，终止妊娠。

1.2 方法

所有产妇在胎盘剥离后给予药物治疗。对照组应用缩宫素和麦角新碱治疗，在患者完成分娩后给予缩宫素注射液(南京新百药业有限公司，国药准字H32025282)，20 U肌肉注射，联合马来酸麦角新碱注射液(山东新华制药股份有限公司，国药准字H37022912)0.2 mg子宫下段注射，必要或患者情况比较危急时可每间隔15 min重复给药。试验组在对照组基础上联合欣母沛(Pharmacia & Upjohn Company，批准文号H20120388)0.25 mg于宫体内注射，若产妇出现子宫收缩不佳等情况，则间隔15 min重复给药治疗。

1.3 观察指标

比较两组产妇产后2 h、24 h的出血量，产后出血率、输血率、止血完全时间。出血量采用容积法和称重法共同计算。容积法：胎儿分娩后，羊水完全凝固，在产妇臀部下放置一个弯盘，直接收集会阴流出的血液，至产后2 h，用玻璃量杯测量弯盘内的血液体积记为产后2 h出血量。称重法：产后2 h出产房时在产妇会阴放置无菌纸浆垫(25 g/块)，每次更换时均称重并记录，至产后24 h。按照比重为1.05=1 mL血液，计算总出血量，产后24 h出血量为容积法和称重法累计相加结果。产后出血：符合

《妇产科学》产后出血诊断标准[7]，即分娩24 h内失血量≥500 mL；分娩后临床表现为子宫质地软、宫缩乏力、子宫轮廓模糊；记录两组产后血红蛋白下降≥30 g/L的例次。

比较两组血流动力学参数，记录入组产妇分娩前和分娩后24 h的舒张压(diastolic blood pressure，DBP)、收缩压(systolic blood pressure，SBP)和心率(heart rate，HR)。

比较两组产妇术后出现发热、肠胃不适、下肢水肿、面色潮红等药物不良反应的次数。

对入组患者随访2个月，产后42 d检查宫体大小和宫腔积血，记录恶露持续时间，B超复查统计宫腔出血率情况及子宫复旧不良率。

1.4 统计学处理

应用SPSS 22.0软件分析数据。计量资料以均数±标准差($\bar{x}\pm s$)表示，组间比较采用采用独立样本t检验，组内比较采用配对样本t检验；计数资料用率表示，组间比较采用χ^2检验。P<0.05为差异有统计学意义。

2 结果

2.1 两组一般资料比较

两组一般资料比较差异无统计学意义(均P>0.05，表1)。

2.2 两组产后出血和输血情况

试验组产妇产后2 h出血量、24 h出血量、止血完全时间、产后出血率、产后血红蛋白下降≥30 g/L的比例和输血率均显著低于对照组(P<0.05，表2)。

表1 两组产妇一般资料比较(n=100)

Table 1 Comparison of general data of puerperae between the two groups (n=100)

组别	年龄/岁	孕周	初产妇/例	流产或引产史/例	产前血色素/(g·L^{-1})
试验组	29.94 ± 3.28	39.12 ± 2.33	79	29	121.63 ± 7.63
对照组	30.41 ± 3.12	38.56 ± 2.64	55	21	122.58 ± 8.09
t/χ^2	1.038	1.590	0.721	1.707	0.854
P	0.300	0.113	0.396	0.191	0.394

表2 两组产后出血和输血情况(n=100)

Table 2 Comparison of postpartum hemorrhage and blood transfusion between the two groups (n=100)

组别	产后2 h出血量/mL	产后24 h出血量/mL	止血完全时间/h	产后出血率/%	产后血红蛋白下降≥30 g/L/%	输血率/%
试验组	266.91 ± 58.88	317.84 ± 68.84	31.25 ± 6.45	5.00	2.00	3.00
对照组	302.77 ± 72.26	375.71 ± 89.62	45.66 ± 9.56	14.00	9.00	11.00
t/χ^2	3.847	5.121	12.495	4.711	4.714	4.916
P	<0.001	<0.001	<0.001	0.030	0.030	0.027

2.3 两组血流动力学参数比较

产后24 h，两组SBP、DBP均较产前显著降低，HR较产前显著升高；其中，试验组SBP、DBP均显著低于对照组，HR显著高于对照组(P<0.05，表3)。

2.4 两组药物不良反应比较

试验组和对照组产妇药物不良反应发生率分别为12.00%、9.00%，差异无统计学意义(P>0.05，表4)。

2.5 两组子宫复旧情况比较

试验组和对照组产妇分娩42 d后，恶露持续时间、宫底高度、宫腔积血率、子宫复旧不良率差异无统计学意义(P>0.05，表5)。

表3 两组血流动力学参数(n=100，$\bar{x} \pm s$)

Table 3 Comparison of haemodynamics parameters between the two groups (n=100, $\bar{x} \pm s$)

组别	观察时间	SBP/mmHg	DBP/mmHg	HR/min^{-1}
试验组	产前	129.34 ± 15.01	87.23 ± 6.63	78.85 ± 5.43
	产后24 h	117.32 ± 13.12*#	80.52 ± 7.22*#	85.02 ± 6.36*#
对照组	产前	129.25 ± 14.45	87.11 ± 6.83	79.77 ± 6.77
	产后24 h	123.66 ± 13.56*	83.67 ± 7.05*	83.19 ± 5.08*

与产前比较，*P<0.05；与试验组产后24 h比较，#P<0.05。

Compared with those before delivery, *P<0.05; Compared with those in experimental group at 24 h after delivery, #P<0.05.

表4 两组药物不良反应(n=100)

Table 4 Comparison of adverse drug reactions between the two groups (n=100)

组别	发热/例	肠胃不适/例	面色潮红/例	下肢水肿/例	总发生率/%
试验组	3	3	4	2	12.00
对照组	3	1	3	2	9.00
χ^2					0.479
P					0.489

表5 两组子宫复旧情况(n=100)

Table 5 Comparison of uterine involution between the two groups (n=100)

组别	恶露持续时间/d	宫底高度/cm	宫腔积血/%	子宫复旧不良/%
试验组	15.33 ± 5.21	14.62 ± 2.37	2.00	1.00
对照组	16.37 ± 6.39	15.37 ± 3.09	2.00	3.00
t/χ^2	1.261	1.926	0.000	1.020
P	0.209	0.056	1.000	0.312

3 讨论

近年随着二胎政策的开放，合并瘢痕子宫、妊娠合并症、高龄等危险因素的高危产妇比例升高，分娩后产后出血的发生率高于健康产妇[8]。产后出血有极大可能引起一系列的并发症，例如凝血功能障碍、希汗综合征、休克等，严重者可能因需切除子宫而丧失生育能力[9]。因此，对高危产妇采取必要的预防措施，可减少产后出血的发生。

目前，临床上主要是通过使用药物加强子宫收缩来防治产妇产后出血，缩宫素是预防产后出血的一线药物，可与子宫收缩肌迅速结合发挥促进宫缩的效果，但其缺点是半衰期较短、不能重复给药，因此，临床常联合其他药物共同防治产后出血[10-11]。麦角新碱主要作用于子宫纤维和血管，半衰期长且促子宫收缩效果明显，研究[12]提示麦角新碱可作为一种长效缩宫素用于产后出血产妇的治疗，不良反应较小。欣母沛近年在临床备受关注，属于钙离子载体，增加平滑肌细胞中钙离子浓度并诱导肌肉收缩，有效促进胎盘附着部位血窦关闭、血小板聚集，从而发挥止血作用，药效长达2 h[13]。本研究将上述两种药物联合用于预防高危产妇的产后出血。

研究发现：试验组产妇产后2 h出血量、24 h出血量、止血完全时间、产后出血率均显著低于对照组，这说明在缩宫素和麦角新碱联用的基础上，联合欣母沛预防高危产妇产后出血的效果优

于缩宫素和麦角新碱联用，考虑是三药联用能有效刺激细胞间间隙连接，释放血管活性物质，提高止血效果。血红蛋白是具有特殊的四个亚基结构，负责运载氧气的蛋白质，为评价患者是否贫血的重要指标[14]。本研究中，试验组产妇产后血红蛋白下降≥30 g/L的比例、输血率均显著低于对照组，说明在改善贫血方面，联合欣母沛的用药优势明显，这与欣母沛加速血小板聚集、促进凝血功能恢复的作用密不可分[15]。此外，产后24 h，试验组SBP、DBP均显著低于对照组，HR显著高于对照组，表明联用欣母沛可稳定产妇血流动力学参数，有助产妇的产后康复，这与欣母沛发挥类催产素作用，选择性作用于子宫而不影响循环系统有关。产后子宫功能复旧受子宫内膜再生和子宫肌纤维收缩的影响，与产妇产后康复情况密切相关。两组恶露持续时间、复旧率、药物不良反应率差异并不显著，提示利用欣母沛联合麦角新碱共同预防产后出血时，对产后子宫复旧的影响不显著。

综上所述，与麦角新碱和缩宫素相比，联合欣母沛在预防高危产妇产后出血方面效果更佳，不仅可显著减少产妇产后出血量、缩短止血完全时间，降低产后出血率和输血率，还能改善其凝血功能和血流动力学指标，安全性较好。

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