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"U" 字缝合止血法对前置胎盘剖宫产患者术中出血量的影响 *

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摘要 目的:探讨 "U" 字缝合止血法对前置胎盘剖宫产患者术中出血量的影响。**方法:**将 2015 年 9 月至 2017 年 9 月在西北妇女儿童医院行前置胎盘剖宫产术的产妇 96 例作为研究对象,将其随机分组为两组,每组各 48 例患者。两组均给予常规止血处理,对照组采用 "8" 字缝合止血法,观察组为 "U" 字缝合止血法,比较两组手术指标及止血效果。**结果:**观察组手术时间、止血时间、术中出血量均显著少(短)于对照组($P<0.05$),凝血酶时间(TT)、血浆凝血酶还原时间(PT)、D-二聚体(D-D)、血小板(PLT)以及活化部分凝血活酶时间(APTT)水平均明显低于对照组($P<0.05$),血红蛋白(HGB)、纤维蛋白原(FIB)水平均显著高于对照组($P<0.05$);止血有效率[97.92%(47/48)]显著高于对照组[85.42%(41/48)]($P<0.05$),患者下床活动时间、住院治疗时间均显著短于对照组($P<0.05$)。**结论:**在前置胎盘剖宫产术中,实施 "U" 字缝合止血法可快速止血,且操作简单,确保降低出血量,降低对患者的损害,保证产妇健康和安。

关键词:缝合止血法;前置胎盘;剖宫产;出血量

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Effect of "U" Suture Hemostasis on the Amount of Bleeding in Cesarean Section of Placenta Previa Patients*

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ABSTRACT Objective: To investigate the effect of "U" suture hemostasis on the amount of bleeding in cesarean section of placenta previa patients. **Methods:** 96 cases of patients undergoing placenta previa cesarean section maternal admitted from September 2015 to September 2017 in our hospital were selected as the research materials and randomly assigned to two groups, with 48 cases in two groups. Both groups of patients were given the routine hemostatic treatment, the control group was given "8" suture hemostasis, the observation group was given "U" suture hemostasis, the index and hemostatic effect were compared between two groups. **Results:** The operation time, hemostasis time, and intraoperative blood loss of observation group were all significantly less (shorter) than those of the control group ($P<0.05$), the thrombin time (TT), plasma thrombin reduction time (PT), D-dimer (DD), platelet (PLT), and activated partial clotting activase time (APTT) were significantly lower than those of the control group ($P<0.05$), the levels of hemoglobin (HGB) and fibrinogen (FIB) were significantly higher than those of the control group ($P<0.05$), the effective rate of hemostasis[97.92% (47/48)] was significantly higher than that in the control group[(85.42% (41/48))]($P<0.05$), the time of ambulation and hospitalization were significantly shorter than those of the control group ($P<0.05$). **Conclusion:** Implementation of "U" suture hemostasis has the advantages of simple operation in the rapid hemostasis of placenta previa cesarean section, it could reduce the amount of bleeding and ensure maternal health with high safety.

Key words: Suture hemostasis method; Placenta previa; Cesarean section; Bleeding volume

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前言

前置胎盘作为一种常见的妊娠晚期并发症,是引起剖宫产术中出血的重要原因,具有出血迅猛、病情危等特点^[1-3]。当前控制剖宫产出血方法较多,主要以药物保留治疗和子宫缝合止血为主^[4,5]。药物治疗对出血凶猛、病情危者效果不佳,在药物

控制的基础上需及时行手术缝合止血,但传统采用子宫下段前后壁贯穿缝合治疗方式耗时较长,虽然止血效果好,但难以及时止血,导致出血量较多^[6-8]。

"8" 字缝合法作为临床上应用较多的缝合止血手段,其治疗效果较为稳定,但由于前置胎盘剖宫产者出血部位多为阴道、宫颈的上行血管^[9-11],而该缝合方法无法对其进行有效结

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扎,应用存在一定的局限性。为保证安全,临床加强了对其他止血缝合法的研究,如"U"字缝合止血法是一种基于连续贯穿缝合技术的止血方式,可起到快速、有效控制局部出血点和阻断阴道上行血管的作用,止血效果更好^[12-14]。为此,本研究主要探讨了"U"字缝合止血法对前置胎盘剖宫产患者术中出血量的影响,现报道如下。

1 材料与方法

1.1 一般资料

选择2015年9月至2017年9月96例于西北妇女儿童医院行前置胎盘剖宫产产妇进行研究,依据随机数字抽取表法分为观察组和对照组,每组各48例,均为术中出血经保守治疗无效的产妇,排除严重心肺肝肾等重要脏器疾病患者、凝血功能障碍患者。对照组产妇年龄在23~37岁,平均年龄为(29.68±2.65)岁,孕周32周至38周,平均孕周(34.25±2.24)周;观察组产妇年龄在23~38岁,平均年龄为(29.54±2.92)岁,孕周32周至38周,平均孕周(34.42±2.64)周。两组产妇基础资料比较差异无统计学意义($P>0.05$),具有可比性。

1.2 治疗方法

1.2.1 对照组 选择硬膜外麻醉方式行横切口于子宫下段,将胎儿及胎盘取出后,给予米索前列醇舌下含服,并注射缩宫素20U于子宫后壁处理,均止血无效。行"8"字缝合术治疗,选择1-0可吸收线在宫腔内进行缝合止血,明确出血部分,从出血区右上方进针,左上方出针,右下方进针,左下方出针后,打结,控制缝合针间距为2.5cm。若止血效果不佳,则需实施子宫动脉结扎术。

1.2.2 观察组 缝合术前操作同上述对照组,行"U"字缝合术

治疗,针对子宫下段或子宫颈前壁出血点,需移出子宫,切口下缘基层后充分暴露出血点位置,再利用1号可吸收线缝合,从出血点外1.5cm浆膜层位置进针,穿透肌层和黏膜层后,在出血点下方反方向进针,出针后打结,间距2cm,若继续出血,需以大针补缝。子宫后壁出血需选择浆膜层进针,行针方法同前述。随后将子宫回纳腹腔,逐层关闭腹腔。

1.3 观察指标

1.3.1 手术指标 记录手术时间、止血时间、术中出血量。

1.3.2 止血效果评价 有效为术后24h出血量不足50mL/h,生命体征稳定,尿量正常;无效为出血量超过50mL/h,继续出血,伴随子宫收缩不良,尿量少或无尿等。

1.3.3 凝血功能和纤溶指标 检测两组患者的凝血酶时间(TT)、血浆凝血酶还原时间(PT)、D-二聚体(D-D)、血小板(PLT)、血红蛋白(HGB)、纤维蛋白原(FIB)以及活化部分凝血活酶时间(APTT)水平。

1.3.4 临床观察指标 记录两组患者的下床活动时间和住院治疗时间。

1.4 统计学处理

将SPSS17.0作为数据统计学分析软件,计数资料和计量资料分别予以卡方检验和t检验,分别为构成比(%)和均数±标准差($\bar{x} \pm s$)表示,以 $P<0.05$ 为差异有统计学意义。

2 结果

2.1 两组手术指标对比

观察组手术时间、止血时间、术中出血量均显著少(短)于对照组($P<0.05$),如表1。

表1 两组手术指标对比($\bar{x} \pm s$)

Table 1 Comparison of the surgical indexes between two groups ($\bar{x} \pm s$)

Groups	n	Operation time(min)	Hemostatic time(min)	Intraoperative blood loss(ml)
Observation group	48	50.25±18.65*	12.32±2.46*	300.95±86.57*
Control group	48	88.64±25.48	22.34±5.16	610.65±150.37

Note: compared with the Control group, * $P<0.05$.

2.2 两组产妇纤溶指标以及凝血因子对比

观察组患者的TT、PT、D-D、PLT以及APTT水平均明显

低于对照组($P<0.05$);HGB、FIB水平均显著高于对照组($P<0.05$),如表2。

表2 两组产妇纤溶指标以及凝血功能对比($\bar{x} \pm s$)

Table 2 Comparison of the maternal fibrinolysis index and coagulation function between two groups ($\bar{x} \pm s$)

Items	Control group	Observation group
PLT($\times 10^9/L$)	248.63±97.58	178.59±71.26*
HGB(g/L)	75.03±8.58	89.16±8.15*
D-D(mg/L)	660.26±12.98	346.85±31.48*
FIB(g/L)	3.16±0.54	3.86±0.58*
APTT(s)	36.14±5.48	28.03±2.47*
TT(s)	19.26±1.46	16.85±1.03*
PT(s)	14.86±1.32	12.85±0.47*

Note: compared with the Control group, * $P<0.05$.

2.3 两组术中止血效果对比

[85.42%(41/48)]($P<0.05$), 如表 3。

观察组止血有效率 [97.92%(47/48)] 显著高于对照组

表 3 两组止血效果对比[例(%)]

Table 3 Comparison of the hemostatic effects between two groups[n(%)]

Groups	n	Effective	Invalid
Observation group	48	47(97.92)*	1(2.08)
Control group	48	41(85.42)	7(14.58)

Note: compared with the Control group, * $P<0.05$.

2.4 两组下床活动时间和住院治疗时间比较

组($P<0.05$), 如表 4。

观察组患者下床活动时间、住院治疗时间均显著短于对照

表 4 两组患者临床观察指标对比($\bar{x}\pm s$)

Table 4 Comparison of the clinical observations between two groups($\bar{x}\pm s$)

Groups	Time of off-bed(d)	Hospitalization time(d)
Observation group	2.16 $\pm$ 0.86*	6.28 $\pm$ 1.94*
Control group	4.62 $\pm$ 1.19	12.05 $\pm$ 2.03

Note: compared with the Control group, * $P<0.05$.

3 讨论

前置胎盘多在妊娠期中晚期出现, 此时胎盘附着于子宫下段, 正缘或覆盖宫颈内口, 并低于胎先露位置, 给母婴的安全带来了隐患^[15-17]。针对此类胎盘, 临床主要采用子宫下段剖宫产术实施分娩^[18, 19]。然而, 该手术出血量大, 再加上病情进展快的因素, 极有可能引发临床风险, 主要原因是底膜脱膜发育不良, 增加了分娩的难度^[20-22]。同时, 在子宫下段层较薄、收缩力差的情况下, 易导致出血。临床认为引起剖宫产出血的危险因素以前置胎盘比较多见, 且危害性大会出现出血凶猛、进展快等特征, 若不及时加以控制, 则会导致母婴不良结局, 甚至威胁生命安全^[23-25]。

临床上, 一般采用手术治疗、药物治疗方法。另外, 采用宫腔纱条填塞方法, 缝合后也会出现并发症, 比如粘连、腹痛等^[26-28]。传统药物保守止血方法针对此类凶险性出血控制效果不佳, 仍需给予手术止血, 而常规 "8" 字缝合止血法, 单纯对出血区域进行缝合, 难以及时止血, 且无法全面止血, 导致术中出血量和术后出血量仍较严重, 难以保证产妇安全^[29, 30]。近年来, 临床加强了对改良 "U" 缝合止血法的研究, 其相对止血操作更加简单, 可实现快速止血, 即其通过对子宫下段、宫颈前壁、宫颈后壁进行全层横贯缝合, 确保全面止血, 保证产妇安全^[11]。本研究结果显示观察组手术时间、止血时间、术中出血量、凝血酶时间(TT)、血浆凝血酶还原时间(PT)、D-二聚体(D-D)、血小板(PLT)以及活化部分凝血活酶时间(APTT)水平均显著少(短)于对照组, 血红蛋白(HGB)、纤维蛋白原(FIB)水平、止血有效率均显著高于对照组, 患者下床活动时间、住院治疗时间均显著短于对照组, 表明开展 "U" 字缝合止血法能够在缩短手术时间的条件下快速止血, 减少术中出血量, 并获得良好的止血效果, 减少术后出血量, 保证产妇安全。分析其原因在于 "U" 字缝合缝型更完整, 对出血点能进行较好的囊括和封闭, 以减少

术中出血^[31]。但由于本次研究的样本量较少, 后期还需进一步研究大样本量的资料用以评价 "U" 字缝合止血法临床用于前置胎盘剖宫产患者术中出血的安全性和有效性。

综上所述, "U" 字缝合止血法对前置胎盘剖宫产患者术中出血量具有良好的控制效果, 且具有操作简单、止血速度快等优势。

参考文献(References)

- [1] Meng Y, Wu P, Deng D, et al. Multifaceted spiral suture: A hemostatic technique in managing placenta praevia or accrete: A retrospective study[J]. Medicine, 2017, 96(49): e9101
- [2] Kavak S B, Atilgan R, Demirel I, et al. Endouterine hemostatic square suture vs. Bakri balloon tamponade for intractable hemorrhage due to complete placenta previa [J]. Journal of Perinatal Medicine, 2013, 41(6): 705-709
- [3] Shin J E, Shin J C, Lee Y, et al. Serial Change in Cervical Length for the Prediction of Emergency Cesarean Section in Placenta Previa[J]. Plos One, 2016, 11(2): e0149036
- [4] Cho H Y, Park Y W, Kim Y H, et al. Efficacy of Intrauterine Bakri Balloon Tamponade in Cesarean Section for Placenta Previa Patients [J]. Plos One, 2015, 10(8): e0134282
- [5] Lopez-Lopez V, Abrisqueta J, Lujan J, et al. Treatment of presacral bleeding after colorectal surgery with Bakri balloon [J]. Cirugia Espanola, 2016, 94(5): 303-305
- [6] Choi S K, Shin J E, Kim S J. Serial change in cervical length and the risk of emergent cesarean delivery in placenta previa [J]. Placenta, 2015, 36(9): A46-A46
- [7] Soyama H, Miyamoto M, Ishibashi H, et al. Relation between Birth Weight and Intraoperative Hemorrhage during Cesarean Section in Pregnancy with Placenta Previa[J]. Plos One, 2016, 11(11): e0167332
- [8] Qiu Z, Hu J, Wu J, et al. Prophylactic temporary abdominal aorta balloon occlusion in women with placenta previa accretism during late gestation[J]. Medicine, 2017, 96(46): e8681

- [9] Siddiqui F, Alahmadi F, Aljaiair L, et al. Bakri balloon for the management of placenta praevia: Retrospective study (Protocol)[J]. European Journal of Inorganic Chemistry, 2015, 2003(2): 301-312
- [10] Cho G J, Kim L Y, Min K J, et al. Prior cesarean section is associated with increased preeclampsia risk in a subsequent pregnancy [J]. BMC Pregnancy and Childbirth, 2015, 15(1): 24
- [11] Charoenraj P, Charuluxananan S, Chatrkaw P, et al. Anesthesia for cesarean section in parturients diagnosed with placenta previa in a Thai university hospital: a retrospective analysis of 562 consecutive cases[J]. Asian Biomedicine, 2015, 8(6): 735-741
- [12] Zhu L, Zhang Z, Wang H, et al. A modified suture technique for hemorrhage during cesarean delivery complicated by complete placenta previa[J]. International Journal of Gynecology & Obstetrics, 2015, 129(1): 26-29
- [13] Abduljabbar H S, Bahkali N M, Al-Basri S F, et al. Placenta previa: A 13 years experience at a tertiary care center in Western Saudi Arabia [J]. Saudi Medical Journal, 2016, 37(7): 762
- [14] Mohammadi S, Essén B, Fallahian M, et al. Maternal near-miss at university hospitals with cesarean overuse: an incident case-control study [J]. Acta Obstetrica Et Gynecologica Scandinavica, 2016, 95(7): 777-786
- [15] D'Antonio F, Palacios-Jaraquemada J, Lim P S, et al. Counseling in fetal medicine: evidence-based answers to clinical questions on morbidly adherent placenta [J]. Ultrasound in Obstetrics & Gynecology, 2016, 47(3): 290-301
- [16] Feng S, Liao Z, Huang H. Effect of prophylactic placement of internal iliac artery balloon catheters on outcomes of women with placenta accreta: an impact study[J]. Anaesthesia, 2017, 72(7): 853
- [17] Jabeen N, Baloch R, Malhi P, et al. Foeto-maternal outcome in instrumental vaginal delivery attending a secondary hospital in Hyderabad (Aga Khan Maternal and Child Care Centre)[J]. Journal of the Pakistan Medical Association, 2017, 67(12): 1833-1836
- [18] Chen Z, Ju L, Jian S, et al. Direct puncture embolization of the internal iliac artery during cesarean delivery for pernicious placenta previa coexisting with placenta accreta [J]. International Journal of Gynecology & Obstetrics, 2016, 135(3): 264-267
- [19] Hong S, Lee S, Oh J, et al. EP15.14: An optimal timing of Caesarean delivery in placenta previa [J]. Ultrasound in Obstetrics & Gynecology, 2017, 50(S1): 331-331
- [20] Soyoral L, Goktas U, Cegin M B, et al. Successful use of sugammadex for caesarean section in a patient with myasthenia gravis [J]. Revista Brasileira De Anestesiologia, 2017, 67(2): 221
- [21] Keag O E, Norman J E, Stock S J. Long-term risks and benefits associated with cesarean delivery for mother, baby, and subsequent pregnancies: Systematic review and meta-analysis [J]. Plos Medicine, 2018, 15(1): e1002494
- [22] Iwahashi N, Ota N, Shiro M, et al. Vasa previa evaluated by noncontrast time-of-flight magnetic resonance angiography [J]. Taiwanese Journal of Obstetrics & Gynecology, 2016, 55(4): 585
- [23] Bao Y, Xu C, Qu X, et al. Risk factors for transfusion in cesarean section deliveries at a tertiary hospital [J]. Transfusion, 2016, 56(8): 2062-2068
- [24] Çintesun E, Al R A. The effect of increased number of cesarean on maternal and fetal outcomes [J]. Ginekologia Polska, 2017, 88(11): 613-619
- [25] Lopez-Lopez V, Abrisqueta J, Lujan J, et al. Treatment of presacral bleeding after colorectal surgery with Bakri balloon [J]. Cirugia Espanola, 2016, 94(5): 303-305
- [26] Chavali J S, Nelson R, Maurice M J, et al. Hilar Parenchymal Oversew: a novel technique for robotic partial nephrectomy hilar tumor renorrhaphy[J]. International Braz J Urol, 2018, 44(1): 199-199
- [27] Fang C W, Tseng C H, Wu S C, et al. Association of Vagotomy and Decreased Risk of Subsequent Ischemic Stroke in Complicated Peptic Ulcer Patients: an Asian Population Study [J]. World Journal of Surgery, 2017, 41(12): 3171-3179
- [28] Wu S C, Chen T L, Fang C W, et al. Association of vagus nerve severance and decreased risk of subsequent type 2 diabetes in peptic ulcer patients: An Asian population cohort study [J]. Medicine, 2016, 95(49): e5489
- [29] Sahin C, Akdemir A, Ergenoglu A M, et al. Which Should Be the Preferred Technique During Laparoscopic Ovarian Cystectomy: Hemostatic Sutures or Bipolar Electrocoagulation? A Randomized Controlled Prospective Study of Long-Term Ovarian Reserve [J]. Reproductive Sciences, 2016, 23(7): S13-S13
- [30] Chan C C, Ching-Yu L. Feasibility and Safety of Absorbable Knotless Wound Closure Device in Laparoscopic Myomectomy [J]. BioMed research international, 2016, 2016(4): 2849476
- [31] Kyu P T, Yang J H, Seung-Hyuk C. Endovascular Repair Using Suture-Mediated Closure Devices and Balloon Tamponade following Inadvertent Subclavian Artery Catheterization with Large-Caliber Hemodialysis Catheter [J]. Korean Circulation Journal, 2016, 46(4): 584

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- [18] Johnson RW, McGregor NE, Brennan HJ, et al. Glycoprotein130 (Gp130)/interleukin-6 (IL-6) signalling in osteoclasts promotes bone formation in periosteal and trabecular bone [J]. Bone, 2015, 81: 343-351
- [19] Burns JE, Yao J, Summers RM. Vertebral Body Compression Fractures and Bone Density: Automated Detection and Classification on CT Images[J]. Radiology, 2017, 284(3): 788-797
- [20] Hatgis J, Granville M, Jacobson RE. Delayed Recognition of Thoracic and Lumbar Vertebral Compression Fractures in Minor Accident Cases[J]. Cureus, 2017, 9(2): e1050
- [21] Kadam G, Narsinghpura K, Deshmukh S, et al. Traumatic lumbar vertebral ring apophysis fracture with disk herniation in an adolescent [J]. Radiol Case Rep, 2017, 12(2): 427-430
- [22] Elapavaluru S, Alhassan S, Khan F, et al. Severe Acute Traumatic Mitral Regurgitation, Cardiogenic Shock Secondary to Embolized Polymethylmethacrylate Cement Foreign Body After a Percutaneous Vertebroplasty [J]. The Annals of thoracic surgery, 2016, 101 (3): 1169-1171