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布托啡诺复合右美托咪定抑制剖宫产术后宫缩痛的临床效果观察 *

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摘要 目的:观察布托啡诺复合右美托咪定抑制剖宫产术后宫缩痛的临床效果及安全性。**方法:**将 2015 年 7 月到 2016 年 10 月在我院进行建档分娩的剖宫产产妇 84 例作为研究对象,根据随机信封抽签原则分为观察组与对照组,每组各 42 例。两组都给予腰硬联合麻醉,对照组给予术后右美托咪定镇痛,观察组给予术后布托啡诺复合右美托咪定镇痛,记录和比较两组产妇的宫缩痛情况。**结果:**两组新生儿的 Apgar 评分对比差异无统计学意义(P>0.05),所有新生儿都存活。术后 2h、4h 与 24h,观察组的宫缩痛评分分别为 0.46± 0.14 分、0.82± 0.19 分和 2.44± 0.92 分,都明显低于对照组的 5.44± 0.98 分、5.63± 0.78 分和 6.09± 0.99(P<0.05)。观察组术后恶心、呕吐、皮肤瘙痒、呼吸抑制等不良反应发生率为 9.5%,对照组为 11.9%,两组对比差异无统计学意义(P>0.05)。观察组与对照组出院时镇痛满意度分别为 100.0%和 90.5%,观察组的满意度明显高于对照组(P<0.05)。**结论:**布托啡诺复合右美托咪定能更好抑制剖宫产术后宫缩痛,对新生儿无明显影响,且安全性较高。

关键词:布托啡诺;右美托咪定;剖宫产;宫缩痛;不良反应

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Inhibitory Effect of Bhutto Butorphanol Combined with Dexmedetomidine on the Constriction Pain after Cesarean Section*

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ABSTRACT Objective: To investigate the clinical efficacy and safety of Bhutto and Butorphanol in combination with dexmedetomidine in the prevention of constriction pain after cesarean section. **Methods:** From July 2015 to October 2016, 160 cases of cesarean section in our hospital for document delivery were selected as the research object, all the cases were randomly divided into the observation group and the control group with 80 cases in each group according to the random lottery envelopes, both groups were given combined spinal epidural anesthesia, the control group was given postoperative analgesia of dexmedetomidine, the observation group was given postoperative analgesia of Bhutto butorphanol combined with dexmedetomidine, the postoperative uterine contraction pain in the two groups were recorded and compared. **Results:** No significant difference was found in the Apgar score of newborns between two groups (P>0.05), all the newborns survived. The uterine contraction pain scores in the observation group at 2h, 4h and 24h postoperation were 0.46± 0.14 points, 0.82± 0.19 points and 2.44± 0.92 points, which were all significantly lower than those of the control group (5.44± 0.98 points, 5.63± 0.78 points and 6.09± 0.99)(P<0.05). The incidence of adverse reactions such as nausea, vomiting, pruritus and respiratory depression in the observation group was 8.8%, which was 10.0% in the control group, and there was no significant difference between the two groups (P>0.05). The satisfaction degree of analgesia in the observation group and the control group was 100% and 92.2% respectively, which was higher in the observation group than that of the control group (P<0.05). **Conclusion:** Bhutto butorphanol combined dexmedetomidine could better inhibit the cesarean section uterine contraction pain, it had no significant effect on the newborn, and had good safety.

Key word: Bhutto Butorphanol; Dexmedetomidine; Cesarean section; Uterine contraction pain; Adverse reactions

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前言

剖宫产术是一种常见的分娩方式，但对产妇有一定的创伤,术后易引起强烈疼痛感。宫缩痛是剖宫产术后疼痛的主要来源,多为子宫收缩剧烈引起的内脏痛[1,2],不利于产妇康复,阻碍催乳素释放,乳汁减少;也可刺激产妇交感神经兴奋,从而引起诸多并发症。为此,剖宫产产妇需要加强镇痛管理[3,4]。相关研究表明积极有效地对剖宫产术后疼痛进行治疗,一方面可以降低术后产妇的疼痛程度,另一方面可以使得机体的应激反应有所降低,有利于产妇的康复[5,6]。

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近年来,剖宫产术后常用的镇痛方法就是于硬膜外腔内注入小剂量吗啡,该方法具有操作简便、安全有效等特点,但容易诱发不良反应,增加了患者的不适感[7-10]。布托啡诺是一种高选择性的 K 受体激动剂,部分拮抗 μ 受体,呼吸抑制仅为吗啡的 1/5,镇痛效价是吗啡的 5-8 倍[11-13]。布托啡诺在临床上主要用于术中的辅助用药但在剖宫产术中用于预防宫缩痛的研究很少。盐酸右美托咪定具有镇静、镇痛、且无呼吸抑制等作用[14,15]。本研究主要探讨了布托啡诺复合右美托咪定抑制剖宫产术后宫缩痛的效果,具体结果如下。

1 资料与方法

1.1 研究对象

选择 2015 年 7 月到 2016 年 10 月在我院进行建档分娩的剖宫产产妇 84 例，纳入标准：研究得到医院伦理委员会的批准;孕足月,初产妇;无宫内窘迫的择期剖宫产;ASA Ⅰ-Ⅱ级,体质量 60-90 kg,身高 155-170 cm;无局麻药及阿片类药过敏史,无长期服用镇静镇痛药物史;术前无脊椎和硬膜外麻醉禁忌症,无其他合并疾病及妊娠合并症;孕妇及家属术前均签署麻醉知情同意书。排除标准:精神疾病产妇;双胎及其多胎产妇;存在肝肾功能明显异常。根据随机信封抽签原则分为观察组与对照组各 42 例,两组产妇的年龄、身高、体重、孕周等比较差异无统计学意义(P>0.05),具有可比性。见表 1。

表 1 两组一般资料的对比

Table 1 Comparison of the general data between two groups

Groups	Cases(n)	Age(year)	Weight(kg)	Gestational weeks (week)	Height(cm)	Gravidity(times)
Observation group	42	26.20± 5.23	75.33± 7.22	39.12± 2.12	165.30± 4.59	2.09± 0.94
Control group	42	26.15± 4.21	75.10± 5.60	38.62± 5.12	161.99± 8.32	2.45± 1.32
P		>0.05	>0.05	>0.05	>0.05	>0.05

1.2 麻醉与镇痛方法

打开静脉通道,实时监测心电图、血压、血氧饱和度及心率,脊椎和硬膜外麻醉应于腰 3-4 间隙进行,待其麻醉成功后,将脊麻针从硬膜外穿刺导入，随后在蛛网膜下腔部位注射 0.75%布比卡因溶液(批号:H080303,浙江仙居制药股份有限公司)1 mL,拔除脊麻针头侧置入硬膜外导管。胎儿取出后,静脉注射 0.05 mg 芬太尼或 5 mg 地佐辛,连接 PCIA 泵。对照组给予右美托咪定(批号:170206BC,江苏恒瑞医药股份有限公司) 0.5 μg/kg(溶于 100 mL 生理盐水中 24h 内泵入)。观察组:在对照组用药的基础上静脉给予布托啡诺(批号:08021532,江苏恒瑞医药股份有限公司)0.01 mg/kg (溶于 10 mL 生理盐水中 5 min 内泵入)。

1.3 观察指标

(1) 在术后 2h、4h 与 24h 进行宫缩痛的视觉模拟评分(VAS),0 分为无痛,10 分为剧痛。(2)观察两组新生儿出生 1 min 和 5 min 的 Apgar 评分,由资深的儿科专业人员评定。(3)记录两组产妇术后 24h 发生的不良反应情况,包括恶心、呕吐、皮肤瘙痒、呼吸抑制等。(4)根据我院自制满意调查表在产妇出院后进行评定镇痛满意度,满意、比较满意、不满意等是具体的三个级别,满意度 =(满意 + 比较满意)/ 总数× 100%。

1.4 统计学分析

选择 SPSS20.00 软件进行数据分析,以均数± 标准差来表示计量资料,计数资料则以百分比形式表示,分别采用 t 检验与卡方检验,以 P<0.05 视为差异有统计学意义。

2 结果

2.1 两组新生儿 Apgar 评分对比

如表 2 所示,两组新生儿出生后 1、5 分钟 Apgar 评分对比差异无统计学意义(P>0.05),所有新生儿都存活。

表 2 两组新生儿 Apgar 评分对比(分,均数± 标准差)

Table 2 Comparison of the apgar score between two groups($\bar{x}\pm s$)

Groups	Cases(n)	At 1min after birth	At 5min after birth
Observation group	42	9.82± 0.33	10.00± 0.00
Control group	42	9.80± 0.45	10.00± 0.00
P		>0.05	>0.05

2.2 两组产妇宫缩痛评分对比

观察组术后 2h、4h 与 24h 的宫缩痛评分分别为 0.46± 0.14 分、0.82± 0.19 分和 2.44± 0.92 分，都明显低于对照组的 5.44± 0.98 分、5.63± 0.78 分和 6.09± 0.99(P<0.05)。见表 3。

2.3 两组不良反应发生情况对比

观察组术后恶心、呕吐、皮肤瘙痒、呼吸抑制等不良反应发生率为 9.5%，对照组为 11.9%，两组对比差异无统计学意义(P>0.05),见表 4。

2.4 两组镇痛满意度对比

观察组与对照组出院时镇痛满意度分别为 100.0%和 90.5%,观察组的满意度明显高于对照组(P<0.05),见表 5。

表 3 两组术后不同时间点宫缩痛评分对比(分,均数± 标准差)

Table 3 Comparison of the score of uterine contractions pain at different times after surgery between two groups(scores, $\bar{x}\pm s$)

Groups	Cases(n)	After surgery for 2h	After surgery for 4h	After surgery for 24h
Observation group	42	0.46± 0.14	0.82± 0.19	2.44± 0.92
Control group	42	5.44± 0.98	5.63± 0.78	6.09± 0.99
P		<0.05	<0.05	<0.05

表 4 两组术后不良反应发生情况对比(例)

Table 4 Comparison of the incidence of adverse reactions between two groups after surgery(n)

Groups	Cases(n)	Nausea	Emesis	Skin itch	Respiratory depression	Total
Observation group	42	1	1	1	1	4(9.5%)
Control group	42	1	1	1	2	5(11.9%)
P						>0.05

表 5 两组镇痛满意度对比(例)

Table 5 Comparison of the satisfaction of analgesia between two groups(n)

Groups	Cases(n)	Satisfaction	More satisfaction	Dissatisfaction	Satisfaction degree
Control group	42	39	3	0	100.0%
Control group	42	32	6	4	90.5%
P					<0.05

3 讨论

宫缩痛生理上是由子宫肌肉阵发性收缩而产生的疼痛,剖宫产是在麻醉下切开腹壁及子宫壁、分娩胎儿的手术,待麻醉药效退去后,产妇也会强烈的疼痛[16,17]。宫缩痛可导致产妇情绪焦虑、紧张、进食减少;也会引起产妇过度通气、耗氧量增加,引起新生儿低氧血症和酸中毒等,造成严重的预后[18,19]。当前剖宫产术后镇痛方法包括口服用药、肌肉注射、患者自控静脉镇痛、患者自控硬膜外镇痛、胸膜内镇痛、腹腔内用局麻药物等[20]。腰硬联合麻醉是一种新型的麻醉方法,使用后对患者的呼吸系统和循环系统产生的影响比较小[21],同时还具有用药方便、用量小、起效快等特点,最为重要的是其兼顾了连续硬膜外阻滞和蛛网膜下隙阻滞的各自优势。

盐酸右美托咪定是一种新型高效的受体激动剂, 对 α2 肾上腺素能受体具有高选择性,可以对交感神经活性镇静、镇痛作用进行有效抑制[22]。布托啡诺是一种可以对 K 受体产生镇痛作用的阿片受体激动拮抗剂, 但对 μ 受体的作用则比较弱[23],属于一种新合成药物。布托啡诺的镇痛效价约为约哌替啶的 30-40 倍、吗啡的 5-8 倍,作用时间与吗啡相似[24]。本研究结果显示:相比对照组,观察组新生儿 1 min 和 5 min 的 Apgar 评分差异无统计学意义,所有新生儿都存活。但观察组术后 2h、4h 与 24h 的宫缩痛评分都明显低于对照组,表明布托啡诺复合右美托咪定能有效抑制剖宫产术后宫缩痛,对新生儿无明显影响。

在阿片受体中,大多数 K 受体分布于下丘脑、杏仁核、垂体前叶等,同时在内侧隆起核、孤束核以及纹状体中分布也较多,其可以被不同的激动剂激活,产生不同的生物学效应[25]。布托啡诺为混合型阿片受体激动 - 拮抗剂,有激动剂的性能以及拮抗吗啡的效应。有研究表明布托啡诺在镇痛的同时一般不会引起兴奋,同时有很好的镇静作用[26]。诸如意识模糊、头晕头痛、浑身无力、欣痫发作等均属于布托啡诺常见的不良反应,有一定的剂量依赖性,持续时间呈剂量相关。本研究显示观察组术后恶心、呕吐、皮肤瘙痒、呼吸抑制等不良反应发生率为 9.5%,对照组为 11.9%,两组对比差异无统计学意义,也表明布托啡诺的应用不会增加产妇的不良反应。

右美托咪定具有 " 可唤醒 " 特点,可引发并维持自然非动眼睡眠状态而产生镇静、催眠作用[27,28]。布托啡诺一方面可以对 μ 受体的呼吸进行有效抑制,另一方面可以降低其成瘾的发生率[29,31],这与布托啡诺发挥的激动和拮抗作用有着密切的关系。研究结果显示观察组出院时镇痛满意度高于对照组,表明布托啡诺复合右美托咪定的联合应用能提高镇痛满意度。

总之,布托啡诺复合右美托咪定能更好抑制剖宫产术后宫缩痛,对新生儿无明显影响,也具有很好的安全性。

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