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不同麻醉方式对剖宫产术后腰背痛发生率的影响 *

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摘要 目的:比较使用不同麻醉方式进行剖宫产术后腰背痛的发生率。**方法:**拟行剖宫产手术待产孕妇 150 例,年龄 22-35 岁,美国麻醉医师协会分级(American Society of Anesthesiologists, ASA)Ⅰ或Ⅱ级,随机分为 3 组(n=50),包括腰硬联合麻醉组(CSE 组);25G 腰穿针蛛网膜下腔麻醉组(S 组);全身麻醉组(G 组),观察并比较术后 2 天、7 天、30 天腰背痛发生情况。**结果:**三组产妇一般情况,手术时间无显著差异。术后 2 天、7 天,S 组与 G 组腰背痛发生率无显著差异,但这两组腰背痛发生率低于 CSE 组,且差异有统计学意义;术后 30 天三组腰背痛发生率差异无统计学意义。**结论:**25G 腰穿针蛛网膜下腔麻醉和全身麻醉可降低剖宫产术后近期腰背痛的发生。

关键词:腰硬联合麻醉;蛛网膜下腔麻醉;全身麻醉;腰背痛

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A Comparison of Incidence of the Low Back pain in the Cesarean Section Patients Undergoing Spinal-epidural Anesthesia、Spinal Anesthesia and General Anesthesia*

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ABSTRACT Objective: To compare the incidence of low back pain (LBP) in different methods of anesthesia for cesarean section. **Methods:** 150 ASA I or Ⅱ patients aged 22-35 weighing 63-85 kg were randomly divided into 3 groups (n=50 each) including Spinal-epidural group (group CSE), Spinal group(group S), General group(group G)received spinal-epidural anesthesia, spinal anesthesia using 25G needle and general anesthesia respectively. Patients were asked about the incidence of LBP during 2,7and 30 days post of surgery. **Results:** Three groups of patients characteristics and duration of surgery had no significant difference. The incidence of LBP in group S and G was significantly lower than that in group CSE, but the differences between group S and G was no statistically significant after 2,7days. There were no significant differences, in the incidence of LBP after 30 days in groups. **Conclusion:** Spinal anesthesia using 25G needle and general anesthesia can decrease the incidence of LBP after cesarean section in comparison with spinal-epidural anesthesia in short term.

Key words: Spinal anesthesia; Spinal-epidural anesthesia; General anesthesia; LBP

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前言

椎管内麻醉包括蛛网膜下腔麻醉、硬膜外麻醉、腰硬联合麻醉三种方法,通过在椎管内的不同间隙注入局麻药,麻醉脊神经所支配的区域产生作用。由于对母婴影响较小,剖宫产手术常选用椎管内麻醉;考虑麻醉医师经验、产妇情况、剖宫产的紧急程度,也可采用全身麻醉。腰背痛作为孕产妇的常见问题,可导致劳动力缺失,甚至残疾,有着重要的社会经济影响[1]。而腰背痛是剖宫产行椎管内麻醉后的潜在并发症,在全身麻醉后也时有发生[2]。ASA 规避诉讼计划[3]分析指出:产科麻醉中由腰背痛引发的诉讼近 10%,因此在临床中选用适宜的麻醉方式,改进麻醉技术,降低甚至避免腰背痛的发生,有重要的临床意义。本文通过观察并比较剖宫产时不同麻醉方式对腰背痛发生的影响,为临床麻醉时提供参考。

1 资料与方法

1.1 一般资料

选择 ASA Ⅰ-Ⅱ级拟行剖宫产手术的单胎初产妇 150 例,年龄 22-35 岁,平均年龄为(26.75± 3.48)岁;体重 63-85kg,平均体重为(71.45± 4.68)kg。入选产妇符合以下标准,无腰背痛病史与椎管内麻醉史;无脊柱畸形;无焦虑症;未使用镇静镇痛药、抗抑郁药、抗癫痫药物;凝血功能异常者禁止椎管内麻醉。

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入选产妇采用随机表法分为三组:腰硬联合麻醉组(CSE 组);25G 细腰穿针蛛网膜下腔麻醉组(S 组);全身麻醉组(G 组)。

1.2 操作方法

所有产妇入手术间后,建立静脉通路,常规监测无创血压,心电图,氧饱和度。

CSE 组(使用新乡驼人医疗器械有限公司腰硬联合麻醉包):产妇左侧卧位,首选 L3-4 穿刺,如遇困难可选择 L4-5。采用直入法并以 16G 硬膜外针为引导,硬膜外针到达硬膜外腔时,通过硬膜外针送入 25G 脊麻针。之后再回抽脑脊液通畅注入腰麻药物,即 0.75%布比卡因(上海禾丰制药有限公司,批号:1302066)1.5 mL 以及 10% 葡萄糖溶液(沱牌药业有限公司,批号:A1307241)1.5 mL。注药后调整麻醉平面在 T6-L5 之间。胎儿娩出后给予咪唑安定(江苏恩华药物有限公司,批号:20130503)1-2 mg,芬太尼(宜昌人福药业有限公司,批号:2130306),30-50 ug。严密监测病人生命体征变化待麻醉平面消退至 T10 以下后送回病房。

S 组:除直接使用 25G 脊麻针直入蛛网膜下腔外,其余均同 CSE 组。

G 组:产妇仰卧,静脉注射异丙酚(四川国瑞药业有限公司,批号:20130926)1-2 mg/kg,氯胺酮(福建古田药业,批号:120821)1-2 mg/kg,氯化琥珀胆碱(上海旭东海普药业有限公司,批号:120101)1-2mg/kg 后快速插管,使用 1MAC 异氟醚(鲁南贝特制药有限公司,批号:64130205)维持麻醉,胎儿娩出后静脉注射咪唑安定 2 mg 和芬太尼 4ug/kg,通气维持呼末 CO235-45 mmHg,手术结束后入麻醉复苏室观察拔管,完全清醒后回病房。

三组产妇手术后均使用静脉镇痛,其使用方法为抽取芬太尼 1 mg 和昂丹斯琼(宁波天衡制药有限公司,批号:130605)4 mg 加入生理盐水配至 100 mL,输注速度维持 2 mL/h。术后 2 天、7 天、30 天时随访。当产妇保持膝部垂直弯腰,双手触摸脚趾时会诱发腰背痛则视为发生腰背痛。

1.3 统计方法

采用统计软件 SPSS13.0 进行统计分析,计量资料以均数± 标准差($\bar{x}$± s)表示,组间比较采用单因素方差分析,计数资料采用卡方检验和 Fisher 确切概率法,当差异 P<0.05 具有统计学意义。

2 结果

2.1 三组产妇一般情况、手术持续时间的比较

三组产妇一般情况(包括年龄、体重、ASA 分级情况),手术时间比较差异无统计学意义(P>0.05),详见表 1。

表 1 产妇一般情况,手术时间比较(n=50)

Table 1 Comparison of general data and operation time of patients in the three groups

Groups	Age(yr)	Weight(kg)	ASA class(Ⅰ/Ⅱ)	Surgery time(min)
Spinal-epidural group	26.72± 3.29	72.32± 4.06	41/9	62.40± 9.38
Spinal group	27.40± 2.84	71.16± 3.62	42/8	60.90± 7.61
General group	26.06± 2.89	71.44± 3.75	40/10	59.20± 7.45

2.2 三组产妇腰背痛发生率的比较

手术后 2 天、7 天,S 组与 G 组腰背痛发生率无显著差异,但低于 CSE 组,差异有统计学意义(P<0.05);术后 30 天三组腰背痛发生率差异无统计学意义(P>0.05);详见表 2。

表 2 三组腰背痛发生率的比较(n=50)

Table 2 The incidences of the Low Back Pain

Groups	After 2d	After 7d	After 30d
spinal-epidural group	34%	24%	10%
Spinal group	10%*	6%*	8%
General group	12%*	8%*	10%

Note: *vs spinal-epidural group P<0.05.

3 讨论

由于硬膜外穿刺针会损伤组织,导致局部无菌性炎症、反射性肌痉挛的发生,因此腰背痛是硬膜外麻醉常见并发症,发生率在 2-31%[4],而产科硬膜外麻醉后腰痛的发生率更高,为 25% - 44% 。本文观察结果表明,CSE 组术后 2d 腰痛发生率为 34%,与以往报道一致。而 S 组与 G 组手术后 2 天、7 天腰痛发生率低于 CSE 组,原因可能是 25G 腰穿针针径较细,而且针内针为笔尖式,穿刺时组织韧带钝性分开未被切断,因而组织损伤较小;而全身麻醉组则无组织穿刺损伤,因而明显降低腰背痛的发生。另外,从文中结果可以看出,术后 2 天、7 天,S 组与 G 组均有腰痛,且发生率差异无统计学意义,说明穿刺损伤不是导致腰痛唯一因素。当病人麻醉时,不能准确判断腰背骨盆位置致体位不当;麻醉手术期间人为固定,以及可能发生关节肌肉韧带损伤[5]等因素都有可能诱发腰背痛。

而本文另一观察结果说明剖宫产术后 30 天时,采用不同麻醉方法的三组产妇腰背痛发生率比较,差异无统计学意义这表示远期产后腰背痛与麻醉方式无关。由于孕期负荷过大、生理机能改变[6-10],以及孕期社会心理因素[11,12]的影响,导致腰背痛是产妇的常见并发症[13-16];其发生与是否采取椎管内麻醉无关[17,18],与椎管内麻醉时穿刺针粗细无关[19]。王岚等[20]发现有手术指针剖宫产后腰背痛发生率与顺产一致,这也提示麻醉与产后腰背痛

无关。本文观察结果与既往研究一致，说明使用粗针椎管内麻醉后腰背痛出现时间短暂，并且不会有长期或更严重的后果，但短期的腰背痛发作，仍然困扰病人，影响其生活质量。因而避免手术后近期腰背痛很有意义。

综上，不同麻醉方式对剖宫产术后远期腰痛无影响，但采用 25G 腰穿针脊麻或全麻，可降低近期腰背痛的发生。

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