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自然分娩和剖宫产发生后腰背痛的差异及相关因素分析*

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摘要 目的:比较自然分娩和剖宫产产妇术后发生腰背痛的情况差异及其相关影响因素。**方法:**选择2014年10月~2016年10月于我院就诊的400例产妇。按照分娩方式的不同分为自然分娩组和剖宫产组,每组各200例。比较两组产妇产后2、3、4个月腰背痛的发生率及疼痛(VAS)评分,并通过logistic回归分析探讨发生后腰背痛的影响因素。**结果:**剖宫产组术后2、3、4个月产妇产后腰背痛的发生率均明显高于自然分娩组($P<0.05$);术后2个月,两组产妇腰背痛的VAS评分接近,术后3、4月剖宫产组产妇的VAS评分均显著高于自然分娩组($P<0.05$);生育超过3次、腰背痛史、剖宫产与产后腰背痛的发生密切相关($P<0.05$)。**结论:**剖宫产产后腰背痛的发病率显著高于采取自然分娩方式的产妇,既往腰背痛史、分娩方式、生育次数、胎儿体重均与是产后腰背痛相关影响因素。

关键词:自然分娩;剖宫产;腰背痛;影响因素分析

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Comparison of the Postoperative Back Pain between Natural Delivery and Cesarean Section and Its Related Factors*

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ABSTRACT Objective: To compare the incidence of postoperative back pain between natural delivery and cesarean section and its related factors. **Methods:** 400 maternals treated in our hospital from October, 2014 to October, 2016 were enrolled in the present study. According to the different delivery ways, they were divided into the natural delivery group and the cesarean sections group, with 200 cases in each group. The incidence of postoperative back pain at 2, 3, 4 month after delivery and the corresponding VAS score were compared between the two groups, the related factors were discussed through logistic regression analyses. **Results:** The incidence of postoperative back pain after 2, 3, 4 month of cesarean sections group were significantly higher than those of natural group ($P<0.05$); the approaching VAS score were observed after 2 month, and the VAS score after 3, 4 month of cesarean sections group were significantly higher than natural group ($P<0.05$); the number of birth ≥ 3 , history of back pain and cesarean section were positive related to the incidence of postoperative back pain. **Conclusion:** Maternal with cesarean sections was more vulnerable to postoperative back pain, and the history of back pain, delivery ways, the number of birth and the weight of baby were the related influencing factors of postoperative back pain.

Key words: Natural delivery; Cesarean section; Back pain; Influencing factors

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前言

腰背痛是一种常见的慢性疼痛,其病因复杂,可严重影响患者的躯体功能、生理功能及精神状态,给日常生活带来不便。由于孕妇腹部负重较大,加之怀孕处于机体的特殊时期,为分娩时婴儿能顺利通过产道,孕妇机体会分泌一种激素,后者可使连结骨盆的韧带松弛,加大脊椎的弯度,尤其是怀孕后期,子宫逐渐增大,腹部隆起,孕妇重心前移,为了保持平衡,站立时孕妇身体向后倾斜,重心落在臀部上方,这种生理变化会导致孕妇腰背部肌肉过度紧张,因此孕妇是腰背痛的高发人群。文献报道的孕妇产后腰背痛的发生率差异较大(14.7%~69.7%),

且国外学者的研究居多^[1-3]。然而研究显示腰背痛的发病率与人种、自身身体素质、胎儿状况、分娩方式、生活习惯、社会环境等多方面因素有关^[4,5]。因此,以我国孕妇为主要对象,研究产后腰背痛的发生率以及影响产后腰背痛的相关因素更加符合我国的临床实际情况,能够为及时做好预防与治疗产后腰背痛提供有力依据。本研究旨在对比研究不同分娩方式(自然分娩和剖宫产)术后腰背痛的发生率并分析其相关影响因素。

1 资料与方法

1.1 一般资料

研究对象:选择2014年10月~2016年10月于我院就诊

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的 400 例产妇。按照分娩方式的不同,分为自然分娩组和剖宫产组,每组各 200 例。两组产妇一般资料如表 1 所示,除剖宫产产妇的身高体重指数显著高于自然分娩产妇外,其他指标比较差异均无统计学差异($P>0.05$)。纳入标准:① ASA 分级 I ~ II ;

② 所有家属均知情同意, 该研究获得我院伦理委员会批准;③ 排除标准:④ 合并肝肾功能不全;⑤ 存在腰椎手术史;⑥ 精神异常不能理解疼痛评分;⑦ 多胎妊娠。

表 1 两组基线资料的比较($\bar{x} \pm s$)
Table 1 Comparison of the baseline information between the two groups ($\bar{x} \pm s$)

Information	Natural delivery group	Cesarean sections group	P value
Age (y)	27.2 $\pm$ 3.2	27.5 $\pm$ 3.4	0.769
BMI (Kg/m ²)	25.53 $\pm$ 2.73	26.89 $\pm$ 2.15	$P<0.001$
Number of births			0.915
1	112	108	
2	78	81	
≥ 3	10	11	

1.2 手术方法

自然分娩产妇宫口开大至 3 公分进产房, 实行常规步骤, 包括吸氧, 实时监测心电图、血压、血氧饱和度等临床指标, 密切关注宫口扩张情况。宫口开至 10 cm, 接生至胎盘娩出, 伤口缝合结束; 剖宫产产妇行常规步骤基础上, 应用腰硬联合麻醉, 首选 L3-4 穿刺, 平行钝性分离棘上、棘间韧带, 气泡法检验是否进入硬膜外腔, 22G 腰穿针注射用脑脊液稀释的 0.75% 的布比卡因 1.8 mL+50% 葡萄糖 0.2 mL+ 脑脊液 1~3 mL, 注入 2.5 mL。术中麻醉调整控制阻滞平面在 T8-T4 之间, 术后回病房平卧 6 h, 腰部稍微垫高。产后随访 4 个月, 检查患者腰背痛情况。

1.3 记录指标

所有入组产妇均定期随访, 详细记录术后 2、3、4 个月腰背

痛情况, 通过视觉模拟评分(VAS 评分)量化疼痛程度: 0 分, 无痛感; 1~3 分, 轻度疼痛; 4~6 分, 中度疼痛; 7~10 分, 重度疼痛。

1.4 统计学分析

使用 SPSS18.0 软件, 计数资料采用卡方检验, 影响因素分析采用单因素 logistics 回归分析法; 计量资料采用 Mann-Whitney U 检验进行统计学分析, $P<0.05$ 为差异有统计学意义。

2 结果

2.1 两组产妇产后腰背疼痛的发生率比较

定期随访结果显示剖宫产术后 2、3、4 个月产妇腰背痛的发生率均明显高于自然分娩组($P<0.05$)。

表 2 两组产妇产后腰背疼痛发生率比较(例(%))

Table 2 Comparison of the incidence rate of postoperative back pain between the two groups (n(%))

Groups	2 months after delivery	3 months after delivery	4 months after delivery
Natural delivery group	51(25.5)	45(22.5)	48(24.0%)
Cesarean sections group	75(37.5)	68(34.0)	68(34.0)
P-value	0.01	0.011	0.028

2.2 两组术后 VAS 评分情况比较

术后 2 个月, 两组产妇腰背痛的 VAS 评分接近, 术后 3、4

月剖宫产组产妇的 VAS 评分均显著高于自然分娩组 ($P<0.05$)。

表 3 两组术后 VAS 评分情况比较比较($\bar{x} \pm s$)

Table 3 Comparison of the postoperative VAS score between the two groups ($\bar{x} \pm s$)

Groups	VAS		
	2 months after delivery	3 months after delivery	4 months after delivery
Natural delivery group	0.87 $\pm$ 1.03	0.33 $\pm$ 0.89	0.24 $\pm$ 0.89
Cesarean sections group	0.88 $\pm$ 1.28	0.56 $\pm$ 1.12 ^a	0.47 $\pm$ 0.97 ^a

Note: compared with natural delivery group, ^a $P<0.05$.

2.3 产后腰背痛的相关影响因素分析

单因素分析表明: 生育次数、胎儿体重、腰背痛史、分娩方式与产后腰背痛的发生密切相关($P<0.05$); 进一步进行多因素 logistics 回归分析, 结果显示: 生育超过 3 次、腰背痛史、剖宫产与产后腰背痛的发生密切相关。

3 讨论

孕妇是腰背痛的高发人群, 无论是孕期还是产后, 腰背痛均是主诉症状。调查结果显示约有 45.3% 的孕妇在孕期内出现腰背痛, 14.7%~69.7% 的孕妇在产后发生腰背痛^[6-9]。腰背痛严

重影响患者机体功能还给患者造成沉重的精神负担,尤其对于 进而有效预防或治疗产后腰背痛一直是临床医师努力的方向。孕妇而言,破坏了初为人母的喜悦。因此探究导致腰背痛的原因,

表 4 产后腰背痛的相关因素分析(n)

Table 4 Analysis of the related factors of postoperative back pain (n)

Factors	Number	Number of postoperative back pain	P
BMI(Kg/m ²)			0.792
20≤ BMI<25	146	44	
25≤ BMI<30	206	60	
BMI≥ 30	48	12	
Number of birth			0.016
1	220	61	
2	159	44	
≥ 3	21	11	
Weight of baby(Kg)			0.033
<4	375	105	
≥ 4	25	11	
History of back pain			0
Yes	299	67	
No	101	49	
Delivery way			0.028
Natural delivery	200	48	
Cesarean sections	200	68	

表 5 产后腰背痛的多因素 logistics 回归分析(n)

Table 5 Logistics regression analysis on the related factors of postoperative back pain (n)

Factors	B	S.E	Wald	P	OR	95%CI
Cesarean sections	0.62	0.17	14.42	<0.001	1.84	1.32~2.48
Number of birth≥ 3	0.29	0.14	4.57	0.034	1.33	1.04~1.78
History of back pain	1.18	0.17	49.26	<0.001	3.25	2.35~4.49

本研究以不同分娩方式为主要出发点探究自然分娩和剖宫产对产后腰背痛的影响,结果显示剖宫产术后腰背痛的发生率明显高于自然分娩组,且经 VAS 评分得知行剖宫产的产妇腰背痛的程度更严重。一项国外学者的研究数据显示剖宫产术后腰背痛的发生率为 33%,而自然分娩的腰背痛的发生率为 8.3%^[10];陈业松^[11]的研究结果亦显示剖宫产产妇和自然分娩产妇在术后 6 个月内腰背痛的发生率具有统计学差异,其中自然分娩组的腰背痛发生率为 15.7%,剖宫产产妇腰背痛的发生率为 33.9%。虽然两项研究中可能由于人种不同造成自然分娩腰背痛的发生率有一定差异,然而剖宫产术后腰背痛的发生率较为接近且均表明剖宫产术后腰背痛的发生率显著高于自然分娩组,与本文研究结果一致。分析造成该结果的可能原因有以下几点^[12-16]:①与自然分娩产妇相比,行剖宫产的产妇具有较大的身高体重指数(BMI),身材相对矮小,骨盆较小;②腹部肌肉有助于保持脊柱的稳定,较强的腹部肌肉力量可起到分担一部分腰部脊柱的载荷,然而剖宫产后,产妇腹部力量大大削弱,腰部脊柱压力过大,导致腰肌劳损;③剖宫产创面较大增加了感染等风险,易引起盆腔炎症,加重骨盆痛。

进一步对影响产后腰背痛的因素加以探究,结果显示除分娩方式以外,产妇的生育次数、胎儿体质量、既往腰背痛史均显著影响产后腰背痛的发生率。多项研究支持生育次数增加产后腰背痛的危险性,一项横断面研究表明初产妇产后腰背痛的患病率为 21%,而经产妇腰背痛的发病率增加了 12%,提示生育次数可能增加患病风险,究其原因可能与多次妊娠导致骨盆韧带松弛,腰肌劳损有关^[17-19]。本研究显示胎儿体质量较大与产妇腰背痛的发生率呈正相关,可能也是由于腰部脊柱载荷相对较大造成的。另外,大量的文献均一致表明存在腰背痛史是术后腰背痛发病率的较大隐患^[20,21],提示孕妇在妊娠前应重视腰背痛,并及时治疗,以降低产后腰背痛的发病率。

本研究结合我国临床实际情况,探究不同分娩方式对产后腰背痛发生率的影响,并深入研究影响产后腰背痛的因素。研究结果提示临床医师应对生育次数大于 3 次、产前有腰背痛史的产妇引起足够的重视,在条件允许的情况下提倡孕妇采取自然分娩方式。关于剖宫产增加产后腰背痛的原因,产后腰背痛是否与剖宫产麻醉方式、麻醉次数、穿刺部位、穿刺次数等有关均有待进一步的研究证实。

综上所述,剖宫产产后腰背痛的发病率显著高于采取自然分娩方式的产妇,既往腰背痛史、分娩方式、生育次数、胎儿体重均与是产后腰背痛相关影响因素。

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