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剖宫产术后感染的相关危险因素分析及干预措施*

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摘要 目的:探讨产妇剖宫产切口感染的相关因素及相应的预措施。**方法:**选取 2012 年 1 月 -12 月在我院行剖宫产术的 300 例产妇,统计切口感染率,分析导致切口感染的相关因素,并制定相关的干预对策。将所选病例随机分为两组,对照组采用常规护理,观察组采用针对性措施进行护理,比较两组产妇切口感染发生率。**结果:**对照组产妇发生切口感染 31 例,感染率为 3.06%,单因素与多因素分析手术时间、BMI、胎膜早破、妊娠并发症、接台手术者切口感染率明显高于产妇手术时间 ≤ 1 h、BMI ≤ 24.0 kg/m²、无胎膜早破、无妊娠并发症、非接台手术者,比较差异有统计学意义($P < 0.05$)。**结论:**手术室手术部位切口感染与手术性质、手术时间有关,针对影响因素制定可行的护理对策,可以明显降低感染率。

关键词:剖宫产;切口感染;相关因素

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Related Factors to Maternal Cesarean Incision Infection and its Nursing Intervention Measures*

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ABSTRACT Objective: To explore the related factors of maternal cesarean incision infection and its nursing intervention measures.

Methods: 300 cases of pregnant women who underwent cesarean section from January 2012 to December 2012 were selected, the infection rate of incision and its related factors were analyzed and set out the related nursing intervention measures, the observation group were given corresponding nursing measure for intervention according to the infection factors, the incidence of infection of incision were compared between the two groups. **Results:** 31 cases of pregnant women were incision infection in the control group, the infection rate was 3.06%, the operation time, BMI, complications of pregnancy, premature rupture of membranes, the station operation incision infection rate were significantly higher than that of operation time ≤ 1 h, BMI ≤ 24 kg/m², without premature rupture of membranes, no pregnancy complications, non after operation according to the single factor and multi factor analysis, the difference was statistically significant ($P < 0.05$). **Conclusion:** Surgical site infection of incision in operation room is related with operation properties, operation site, operation time, the visitors and the after surgery, to make the feasible nursing countermeasures for the influence factor can significantly reduce the rate of infection.

Key words: Cesarean section; Incision infection; Related factors

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前言

剖宫产切口感染是产科手术常见并发症之一,也是产后积极预防和干预的重要方面,一方面,切口感染会延长的住院时间,给患者增加痛苦和住院费用^[1],另一方面,严重影响产妇产后恢复及新生儿的照顾,对手术效果产生不利影响,甚至继发其他并发症^[2]。因此,分析导致产妇剖宫产切口感染的因素,进行针对性的预防,对患者顺利康复出院至关重要。本文分析导致剖宫产切口感染的相关因素,并在护理方面制定了相关的干预措施,达到了预防切口感染的预期目的,现将剖宫产切口感

染的相关因素与护理干预措施报道如下:

1 资料与方法

1.1 一般资料

将 2012 年 1 月 -12 月 300 例剖宫产产妇,年龄 23-41 岁,平均(30.58 $\pm$ 6.65)岁,初产妇 156 例,经产妇 144 例,足月产 168 例,早产 81 例,胎膜早破 69 例,合并妊娠并发症 173 例。将所选病例随机分为两组,对照组采用常规护理,观察组采用针对性措施进行护理。两年患者年龄、足月产率、妊娠合并症等一般资料无显著性差异($P > 0.05$),具有可比性。

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1.2 产妇剖宫产切口感染相关因素调查

自制产科切口感染调查表,一般项目包括:姓名、年龄、籍贯、民族等,调查项目包括:手术时间、分娩季节、BMI、胎膜早破、是否足月、妊娠并发症、是否属于接台手术等,由妇产科主管护士填写以上内容,仔细记录切口感染情况。

1.3 剖宫产切口感染诊断标准

产妇剖宫产切口感染的诊断,参照国家卫生部医院感染监控协调组编制的《医院感染的诊断标准》^[9],所有切口感染经剖宫产产妇均经切口分泌物涂片或血液细菌培养检查确认,临床表现为切口红肿,皮温增高,分泌物增多等。

1.4 预防切口感染的措施

①手术时间:加强手术室器械护士、助产士业务技能的培训,提高其业务水平和工作效率,配合手术医师在最短时间内的完成手术,培训内容包括常用设备使用流程,熟知产科手术步骤,对手术医师需要的器械有预知性,提高传递效率和手术配合默契度。②超重产妇护理:针对超重产妇进行个体化护理,手术尽量避免使用电刀,术后安排责任护士,定时巡视,增加换药频率,适当增加抗生素应用量和时间,鼓励早期床上或下地活动,保障睡眠时间和质量。③手术评估:对胎膜早破的产妇,须紧急安排手术,对合并妊娠并发症的患者,尤其是重症期,例如重度妊高症者,可在治疗并发症的同时行剖宫产,对机体免疫力低或存在降低免疫力因素的产妇,术前尽量采取改善饮食、给予药物增强免疫力,如贫血的产妇,应纠正贫血后再行手

术,如术前条件不允许,应在术后给予输血。④手术环境:严格消毒制度,针对产科用的手术器械、辅料,采取最有效的消毒方式,产科手术尽量使用层流手术间,限制手术参观人数,适当减少接台次数,尽量避免连台手术。⑤菌群检测:定期检测病室菌群数量,定期进行病室消毒处理,定时通风换气,保证病室内细菌数目维持在低水平。

1.5 统计学方法

对对照组可能导致剖宫产切口感染的因素进行再次分组,包括手术时间、分娩季节、BMI、胎膜早破、是否足月、妊娠并发症、是否属于连台手术、年龄,比较各亚组感染率差异,应用SPSS16.0医学统计学软件进行 χ^2 检验,对有统计学意义的因素,进行多因素 Logistic 回归分析,以 $P < 0.05$ 则表示具有统计学意义。

2 结果

2.1 对照组产妇切口感染影响因素单因素分析

对照组产妇发生切口感染 31 例,感染率为 3.06%,其中手术时间 $> 1\text{ h}$ 、BMI $> 24.0\text{ kg/m}^2$ 、胎膜早破、合并妊娠并发症、连台手术者切口感染率明显高于产妇手术时间 $\leq 1\text{ h}$ 、BMI $\leq 24.0\text{ kg/m}^2$ 、无胎膜早破、无妊娠并发症、非连台手术者,比较差异有统计学意义($P < 0.05$),分娩季节、是否早产、年龄分组,比较差异无统计学意义($P > 0.05$),详见表 1。

表 1 对照组产妇切口感染影响因素单因素分析

Table 1 Maternal factors affecting wound infection univariate analysis in the control group

Influencing factors		Incision infection	Rate	χ^2	P
Operation time	$> 1\text{ h}$	17	5.38%	9.85	0.016
	$\leq 1\text{ h}$	14	2.01%		
Season	Spring	7	2.73%	7.82	0.217
	Summer	7	3.33%		
	Autum	6	2.67%		
	Winter	10	3.03%		
BMI(kg/m^2)	> 24.0	14	3.94%	11.43	0.025
	≤ 24.0	17	2.59%		
Premature rupture	Yes	21	17.21%	19.38	0.011
	No	10	1.12%		
Full-term or premature	Full-term	26	3.17%	14.15	0.144
	Premature	5	2.62%		
Complications	Yes	17	5.33%	13.08	0.016
	No	14	2.02%		
Operations	Yes	13	4.41%	16.32	0.033
	No	18	2.20%		
Age	> 30	15	3.32%	10.71	0.228
	≤ 30	16	2.86%		

2.2 对照组剖宫产产妇切口感染多因素 Logistic 回归分析

产妇剖宫产切口感染的关键因素($P < 0.05$),见表 2。

手术时间、BMI、胎膜早破、妊娠并发症、接台手术是影响

表 2 对照组剖宫产产妇切口感染影响因素多因素分析
Table 2 Multivariate analysis of incision infection between two groups

Influencing factors	B	SE	Wald	df	Sig	Exp(B)
Operation time	-3.213	0.229	2.279	1	0.018	0.127
BMI	1.835	0.695	4.144	1	0.035	0.081
Premature rupture	0.668	0.755	9.85	1	0.024	0.869
Complications	1.386	0.867	15.68	1	0.031	1.115
Operations	1.354	0.912	11.37	1	0.017	0.438

2.3 观察组与对照组手术室手术切口感染率比较

的 3.06%,两组比较差异比较差异有统计学意义($\chi^2=5.22, P < 0.05$),详见表 3。

观察组产妇剖宫产切口感染率为 1.06%,明显低于对照组

表 3 观察组与对照组产妇剖宫产切口感染率比较
Table 3 Comparison of incision infection of patients in the two groups

Group	n	Infection	Rate	χ^2	P
Observation	150	31	3.06%	5.22	0.005
Control	150	12	1.06%		

3 讨论

近年来,剖宫产分娩率在国内不断升高,但是剖宫产具有较多的并发症,术后感染产科临床最常见并发症之一。据报道,剖宫产术后感染率高达 8%-27%^[6],远高于自然产分娩感染率。其中,切口感染是最常见感染类型,国内报道为 3%-16%^[7]。临床认为,产后发生切口感染不仅严重影响产妇的身心健康,延长康复时间,且对新生儿的照顾也极为不利,故分析剖宫产切口感染的诱发因素,在护理角度制定相应的干预措施十分必要^[8-10]。

本研究选取的剖宫产产妇,发生切口感染 31 例,发生率为 3.06%,在国内报道的文献中处于较低水平,统计导致感染的因素发现手术时间 > 1 h、BMI > 24.0 kg/m²、胎膜早破、合并妊娠并发症、连台手术者切口感染率较高。多因素 Logistic 回归分析证实手术时间、BMI、胎膜早破、妊娠并发症、接台手术是影响产妇剖宫产切口感染的关键因素。相关研究证实妊娠高血压、手术时间过长以及急诊手术是导致切口感染的重要因素^[11-13]。还有研究证实,BMI、胎膜早破是诱发产妇切口感染的相关因素^[14],与本次研究结果基本一致。

切口在空气中暴露的时间越长,产妇抵抗力损伤越大,术后切口感染率越高^[15]。既往研究报道,手术时间每延长 1 小时,切口感染率增加 1 倍,提高手术护士技能,增强与手术医师配合的默契程度,是缩短手术时间的关键^[16]。另外,早期给予康复训练也是有效预防切口感染的方式^[17]。胎膜早破、妊娠并发症这些因素可以降低产妇防御感染的能力,增加病原菌入侵的机会^[18]。因此,在术中、术后均应给予特殊严格的处理,保证手术环境无菌,减少病室内细菌基数,有效降低切口感染^[19,20]。

综上所述,根据切口感染相关因素制定相应的干预措施能够获得较好的临床效果,可有针对性的预防剖宫产切口感染的发生。

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