

## NURSING CARE FOR POSTPARTUM PREGNANT WOMEN WITH EPISIOTOMY STITCHES AT HAU GIANG OBSTETRICS AND PEDIATRICS HOSPITAL IN 2020-2021

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### ABSTRACT

**Objective:** To describe nursing care for postpartum pregnant women with episiotomy stitches at Hau Giang Obstetrics and Pediatrics Hospital in 2020-2021. **Subjects and method:** A cross-sectional study was conducted on 385 postpartum women with episiotomy stitches at Hau Giang Obstetrics and Pediatrics Hospital from November 2020 to April 2021. The data was collected by using checklists, interviewing, and getting information from the patient's medical records. **Results:** Most of patients had the episiotomy stitch classification at grade I (97.9%). 73.2% of the subjects had an episiotomy stitch at the 7 o'clock position. 73% of women had episiotomy (73.0%), most of the episiotomy was sutured with undissolved sutures. 83.4% of subjects had severe pain/severe (85.5%). However, only 26.2% had postpartum complications (common is urinary retention, postpartum haemorrhage). Outcomes of care: 69.4% of women have good knowledge of episiotomy stitches care; 98.7% of women are satisfied with the nurses in monitoring and caring for the episiotomy stitches. Most of the women had a decrease in pain on the 3rd day compared to postpartum (95.8%). Results of maternal care are good, accounting for 64.2%. **Conclusion:** Nursing care for postpartum women with episiotomy stitches improved postpartum symptoms.

**Keywords:** postpartum nursing care, episiotomy stitches, Hau Giang Obstetrics and Pediatrics Hospital.

### 1. INTRODUCTION

An episiotomy is a surgical incision made in the area between the vagina and anus. It is used to enlarge the vaginal opening before delivery. After the baby is delivered, stitches are used to close the incision as well as repair any tears. Taking good care of episiotomy stitches during postpartum recovery will minimize the risk of infection and can help manage pain. In Vietnam, episiotomy has become quite common in

normal deliveries. According to Nguyen Duc Hinh (2002), rate of episiotomy in the first child birth accounted for 91.7%, for the second child onwards only 66.8% [1]. The main concern in episiotomy is the possible complications, although there is no statistical association between the occurrence of complications and episiotomy. Because many cases of severe tearing were not reported. This rate ranges from 0-4.5% and varies from hospital to hospital [2, 3]. According to the World Health Organization,

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postpartum care includes monitoring and referring the mother to treatment if there are complications such as bleeding, pain, infection. In particular, episiotomy stitches care plays an important role, contributing to reducing the rate of infection of the episiotomy suture and reducing the rate of postpartum infection. Department of Obstetrics and Gynecology, Hau Giang Obstetrics and Pediatrics Hospital, is one of the locations responsible for examining and treating obstetrics and gynecological diseases for people in Hau Giang province and neighboring communes and districts. According to statistics in 2019, the hospital received 3,763 pregnant women to give birth, an increase of 9.96% compared to 2018 [4]. However, not many studies have been performed regarding the care of episiotomy stitches in pregnant women. Therefore, we conducted a study on “*Postpartum care for pregnant women with episiotomy stitches at Hau Giang Obstetrics and Pediatrics Hospital in 2020-2021*”. The objective of study was describing nursing care for postpartum pregnant women with episiotomy stitches at Hau Giang Obstetrics and Pediatrics Hospital in 2020-2021.

## 2. RESEARCH SUBJECTS AND METHODS

### 2.1. Research subjects

Postpartum pregnant women with episiotomy stitches are hospitalized at Hau Giang Obstetrics and Pediatrics Hospital.

Inclusion criteria: Women over 18 years old, normal birth with episiotomy stitches.

Exclusion criteria: stillbirth, birth defects. Pregnant women with serious physical and mental illnesses.

### 2.2. Research period and setting

Research period: from November, 2020 to April, 2021

Research setting: Hau Giang Obstetrics and Pediatrics Hospital

**2.3. Study design:** A prospective descriptive study.

### 2.4. Sample size and sampling method

- Sample size: apply the formula to calculate sample size for proportion estimate:

$$n = Z_{1-\alpha/2}^2 \frac{p(1-p)}{d^2}$$

n: Sample size required

p: The percentage of good care for episiotomy stitches evaluated, choose  $p=0.5$

$\Delta$ : Allowable deviation between the rate obtained from the study sample and the rate of the population. Deviation 5%,  $\Delta = 0.05$ .

$Z_{\alpha/2}$ : The Z value obtained from the Z table corresponds to the selected  $\alpha$  value

$\alpha$ : Significance level with  $\alpha = 0.05$ , Z coefficient  $(1-\alpha/2) = 1.96$

→  $n = 385$  patients

- Sampling method: Using convenient sampling method

### 2.5. Data collection

Data was collected by using the questionnaires.

Data collection methods: interviews using questionnaires, using checklists and getting information patient's medical records.

Data collection procedures: The investigator made a list of eligible mothers

to invite to participate in the study. After the mother was transferred to the postpartum room (from 0-3 days after giving birth), the investigator met to introduce the study. If mothers agreed to participate, they were invited to sign a consent form to participate in the study. Investigators conducted interviews and monitored episiotomy stitches using checklists and medical records.

## **2.6. Research variables, evaluation criteria**

- Variables:

+ General characteristics of pregnant women: age, occupation, education level, number of births.

+ Clinical characteristics: episiotomy suture characteristics, episiotomy tear, episiotomy site, additional tear, postpartum complications, pain.

+ Results of care: Results of taking care of stitches; Results provide knowledge of episiotomy stitches care; Satisfaction with nursing care; General care outcomes.

+ Pain level: using the VAS Scale 0-10 points to assess the pain level of pregnant women at 2 time points: 2 hours after birth and at hospital discharge time.

- Evaluation criteria:

+ Episiotomy stitches care: assessment at 2h, 3-6h, 7h, 3 days, 4 days, 5 days after birth:

Stitches (abnormal: infected swelling, heat, redness, pain, oozing, open sutures; normal)

Odor of discharge (abnormal: foul-smelling vaginal discharge; normal)

Color of discharge (abnormal: blood, cloudy discharge; normal)

+ Good episiotomy stitches care: there is no sign of infection of the stitches, no foul smell of vaginal discharge, normal discharge.

+ Episiotomy stitches care knowledge: assessing at hospital discharge time with 24 questions (According to the National Standard Guidelines for Reproductive Health Services [5]):

Good: the mother has knowledge score from 18/ 24;

Not good: the mother has knowledge score below 18/24.

+ Overall care results:

Good: good suture care, reduced pain level, satisfied with nursing care, good knowledge of suture care.

## **2.7. Data analysis**

The data were synthesized by using SPSS 20.0 software.

Descriptive statistical including mean, percentage, standard deviation were used to describe variables of study.

## **2.8. Research ethics**

The research proposal was approved by the Ethical Review Board of Thang Long University Council the Scientific Council of Hau Giang Obstetrics and Pediatrics Hospital. An informed consent was obtained to ensure that the subjects voluntarily participated in this study. The women participating in the study were provided with full information about the study including the purpose, research methods and rights when participating in the study. Participants have the right to withdraw from the study at any time

The responses would be kept strictly confidential, and their identity will not be revealed, only use for research purposes.

### 3. RESULTS

The mean age of the study subjects was 26.4 ( $\pm$  6.59) years old. The majority of pregnant women are under 35 years old (87.0%). The majority of pregnant women work as farmers (39.7%). 73% of pregnant women live in rural areas. The majority of pregnant women have lower secondary education (41.3%). Nearly half of women giving birth for the first time (46.8%).

#### 3.1. Clinical characteristics of postpartum pregnant women with episiotomy stitches

**Table 1. Characteristics of episiotomy stitches of pregnant women**

Characteristics	Frequency	%	
Episiotomy stitches level	Level I	250	97.9
	Level II	8	2.1
Position of episiotomy stitches	5 o'clock	1	0.3
	6 o'clock	102	26.5
	7 o'clock	282	73.2
Episiotomy tear condition	Episiotomy tear	104	27.0
	Cut episiotomy	281	73.0
Is there more tearing?	Yes	131	34.0
	No	254	66.0
Type of episiotomy suture	Absorbable suture	64	16.6
	Nonabsorbable suture	321	83.4
Postpartum pain level	No pain	0	0.0
	Mild pain	16	4.2
	Moderate pain	40	10.4
	Severe pain	214	55.6
	Very severe pain	112	29.1
	Worst possible pain	3	0.7
<b>Total</b>	<b>385</b>	<b>100</b>	

97.9% of pregnant women have episiotomy stitches at level I. Nearly three-quarters of women have episiotomy I stitches at 7 o'clock position (73.2%). 73.0% of pregnant women had cut episiotomy, 27.0% had an episiotomy tear. The rate of women with extra episiotomy tear was 34.0%. 83.4% of subjects were used nonabsorbable suture. After giving birth, the majority of pregnant women have pain at three level: severe pain, very severe pain, worst possible pain (75.4%).

**Table 2. Postpartum complications of pregnant women**

Characteristics	Frequency	%
<b>Postpartum complications</b>		
Yes	101	26.2
No	284	73.8
<b>Type of postpartum complications (n=101)</b>		
Episiotomy tear level III - IV	1	1.0
Postpartum haemorrhage	24	23.7
Infection	3	3.0
Vaginal episiotomy hematoma	10	10.0
urinary retention after birth	49	48.5
Other complications	14	13.8
<b>Total</b>	<b>101</b>	<b>100</b>

There are 26.2% of women with postpartum complications. The rate of complications in 101 pregnant women with complications was quite different: urinary retention after childbirth (48.5%); postpartum hemorrhage (23.7%); Vaginal episiotomy hematoma (10.0%); infection (3%) and episiotomy tear level III - IV was 1.0%.

### 3.2. Results of postpartum care for women with episiotomy stitches

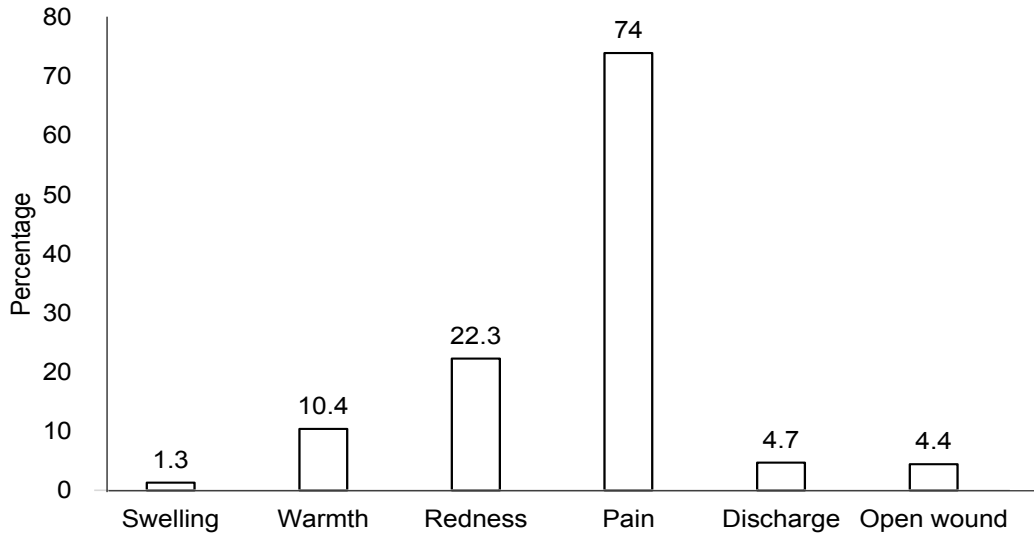
**Table 3. Monitor episiotomy stitches**

Contents	2 hours after birth (n=385)	3 - 6 hours after birth (n=385)	7 hours after birth (n=385)	3 days after birth (n=385)	4 days after birth (n=336)	5 days after birth (n=223)
<b>Stitches</b>						
Normal	265 (68.8%)	269 (69.9%)	368 (95.6%)	342 (88.8%)	326 (97.0%)	222 (99.6%)
Abnormal	120 (31.2%)	116 (30.1%)	17 (4.5%)	43 (11.2%)	10 (3.0%)	1 (0.4%)
<b>Vaginal discharge smell</b>						
Normal	385 (100%)	385 (100%)	384 (99.7%)	353 (91.7%)	303 (90.2%)	221 (99.1%)
Abnormal	0 (0.0%)	0 (0.0%)	1 (0.3%)	32 (8.3%)	33 (9.8%)	2 (0.9%)
<b>Color of vaginal discharge</b>						
Normal	385 (100%)	385 (100%)	385 (100%)	385 (100%)	334 (99.4%)	218 (97.8%)
Abnormal	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (0.6%)	5 (2.2%)

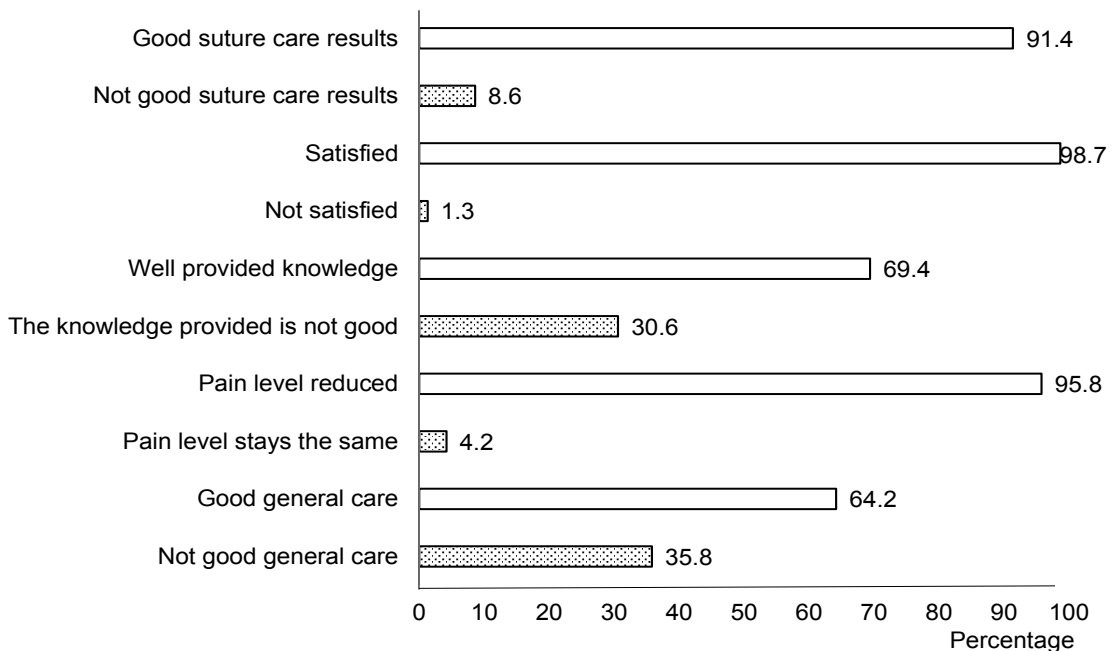
Episiotomy stitches are usually abnormal at 2 hours and 3-6 hours after birth with the rate of 31.2% and 30.1%, respectively.

Nearly 1 in 10 women have an abnormal vaginal discharge smell from the 3rd day after giving birth (8.3%). However, by the 5th day, almost all of the women's vaginal discharge was normal (99.1%).

The results showed that on the first day and the third day after giving birth, no women had any abnormalities in the color of vaginal discharge. There is a small percentage of women with abnormal vaginal color starting from day 4 postpartum (0.6%).



**Figure 1. Results of care for episiotomy stitches on the 3rd day after birth**  
The rate of pregnant women having pain is 74%; redness 22.3%; warmth 10.4%.



**Figure 2. Results of taking care of pregnant women with episiotomy stitches**

91.4% of women have good suture care results. 98.7% of women are satisfied with nursing care. The percentage of women who had good knowledge about the care of the episiotomy stitches was 69.4%. 95.8% of pregnant women have lower pain level on the 3rd day after giving birth. 64.2% of pregnant women have good general care results

## **4. DISCUSSION**

### **4.1. Clinical characteristics of postpartum pregnant women with episiotomy stitches**

Episiotomy is intended to reduce the incidence of grade III or higher episiotomy tears during first childbirth. In some countries this procedure has become routine. The tear of the perineum is classified into four levels: level I damage to the skin, vaginal mucosa; level II vaginal muscle injury, severe vaginal injury with bilateral vaginal tear; level III extensive tear associated with sheath tear or rupture of the anal sphincter; level IV complex lesions, damage to the anorectal canal mucosa. Our study showed that most of 97.9% of women have level I episiotomy. These results can be explained because in our study the percentage of pregnant women giving birth for the second time onwards accounted for more than 50%. In women giving birth for the first time, the episiotomy often dilates not as well as women giving birth from the second time onwards, so the rate of women with level I episiotomy tear is quite high. In addition, the extent of damage to the episiotomy mainly depends on the weight of the fetus and the age of the mother.

97.9% of pregnant women have episiotomy stitches at level I. Nearly

three-quarters of women have episiotomy I stitches at 7 o'clock position (73.2%). 73.0% of pregnant women had cut episiotomy, 27.0% had an episiotomy tear. The rate of women with extra episiotomy tear was 34.0%. 83.4% of subjects were used nonabsorbable suture. After giving birth, the majority of pregnant women have pain at three level: severe pain, very severe pain, worst possible pain (75.4%). There are 26.2% of women with postpartum complications. Among 101 pregnant women with complications, the rate of each type of postpartum complication was: postpartum urinary retention (48.5%); postpartum hemorrhage (23.7%); perineal vaginal hematoma (10.0%); infection (3%) and grade III-IV perineal tear was 1.0%. In general, the percentage of pregnant women with postpartum health problems is quite low, which is also a good sign in postpartum care.

### **4.2. Results of postpartum care for pregnant women with episiotomy stitches:**

The results showed that nearly 1 in 10 women have an abnormal vaginal discharge smell from the 3rd day after giving birth (8.3%). However, by the 5th day, almost all of the women's vaginal discharge was normal (99.1%). The results showed that on the first day and the third day after giving birth, no women had any abnormalities in the color of vaginal discharge. There is a small percentage of women with abnormal vaginal color starting from day 4 postpartum (0.6%). Although the abnormality rate is low, it is a dangerous sign that can easily lead to genital infections in the days after the postpartum care period. In the study of Nguyen Kim Anh (2020) in the morning of the 3rd day after giving birth, 83.8% of

women had a small amount of discharge and 99.0% had a dark red discharge [6].

Care for episiotomy stitches is very important to consider and measures should be taken to change dressings, to clean and to designate in case the person is handling suture damage or infection. On the 3rd day after birth, the rate of pregnant women having pain is 74%; redness 22.3%; warmth 10.4%. The result showed that the percentage of women with good suture care results was 91.4%. The finding of Tran Thi Tu Anh study showed 100% of pregnant women received care [7]. Satisfactory outcomes for women's episiotomy stitches care reflect the effectiveness of maternal care, as a result of prompt and reasonable follow-up and management, leading to quick healing and less scarring. symptoms. The results showed that 98.7% of women were very satisfied with the nurses in monitoring and taking care of the episiotomy stitches. The finding of Nguyen Thi Tuyet study showed that 93.3% of pregnant women are satisfied with the care of medical staff at the ward [8]. It means that the percentage of patients who are satisfied with the nursing care is quite high. This result is possible because the nurse is the one who directly asks the patient about the satisfaction level. This may affected the patient's assessment.

Knowledge about postpartum care of mothers plays an important role in helping women have proper and scientific postpartum care practices, helping to protect and promote women's health in the postpartum period. Knowledge of postpartum care is very basic for pregnant women because it can help early detection and timely treatment of maternal abnormalities. 95.8% of pregnant women have lower pain level on the 3rd day compared to postpartum.

According to Nguyen Kim Anh (2020) the percentage of pregnant women who feel pain is 98.7% [6]. Research results showed that in this study 64.2% of women have good general care outcomes. Nursing care for postpartum women with episiotomy stitches has improved in symptoms in postpartum patients, but more attention should be paid to the nursing process of postpartum care.

The limitation of the study is that our study nurses directly interviewing the patients, so it may affect the patient's subjective assessment of the nursing care.

## 5. CONCLUSION

Most women have good suture care results (91.4%). Nearly 100% of pregnant women are satisfied with nurses in monitoring and caring for episiotomy stitches. The majority of women had good knowledge about episiotomy suture care (69.4%). 64.2% of women have good general care outcomes. Nursing care for postpartum pregnant women with episiotomy stitches has reduced patient's symptoms. Should be paid more attention to the nursing process of postpartum care.

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