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The Factors Affecting Uterine Involution In Post SC Mothers

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Abstract. Involution of the uterus is one of the physiological changes that occur in the puerperal mother in which the uterus back to the condition before pregnancy with one of the indicators is the decrease high of fundus uteri. Fenomena in the field, there are still many found postpartum post SC the third day with high of fundus uteri still one finger below umbilikus . The Failed involution of the uterus can cause bleeding, if not promptly treated can cause death. The purpose of this study was to analyze factors affecting uterine involution in post-SC mother. Type of analytic research, one group prepost test design. Population of post SC mother in RSUD dr. Iskak Tulungagung regency, with accidental sampling technique obtained 33 respondents who do not do early breastfeeding initiation, do not experience complications during childbirth and get diet from hospital. This research was conducted on October 1 - 31, 2016 . The analysis technique uses dependent t test . There was a relationship between age and involution of uteri that was statistically significant with p value 0,000. There was a relationship between parity and involution of uteri that was statistically significant with p value of 0.000. There was a influence between the puerperal Gymnastics to involution of uteri that was statistically significant with p value of 0.000 uterine involution on Post SC primiparous mother can still run normally, as long as the mother is willing to do puerperal gymnastics and when giving birth has age between 20-35 years old. For that counseling and screening high risk of childbirth and postpartum care is necessary to avoid postpartum complications.

1. Introduction

Involution of the uterus is a process by which the uterus back to the condition before conceiving with weighs only 60 grams [1] . Involution of the uterus is one of the physiological changes that occur in puerperal mother, namely the period after childbirth, starting from 2 hours after the birth of the placenta to 6 weeks or until restoration of the reproductive organs to the state before pregnancy [2] . The postpartum period is necessary get attention because about 60% Maternal mortality (MMR) occurs in this period [3] , and one of the causes is the existence of sub involution[4].

During the process of uterine involution, in addition to issuing lochea, uterine weight and height of the fundus uteri also have decrease[5]. However, phenomenon in the field, there are still many found puerperal mother third day with high of fundus uteri still one finger below umbilikus, when it should



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have been three finger under the umbilikus. This indicates there are still many puerperal mother who experienced delay in high of fundus uteri decline. In addition, the results of the research also showed a difference in high of fundus uteri decline in postpartum physiological and post SC with p value 0.000. physiologic puerperal mother experiencing delays in high of fundus uteri decline as many as 13 respondents (18.3%) and in puerperal mothers post SC experiencing delays in high of fundus uteri decline as many as 20 respondents (60.6%)[4].

Involution is caused by contractions and retraction of continuously uterine muscle fibers. Failure of uterine involution to return to a non pregnant state can cause sub involution[6]. The Symptoms of sub involution among others lochea settled / red fresh, slow uterine fundus decline, contraction of the uterine soft, there is no feeling of abdominal pain in the puerperal mother. Sub involution can cause bleeding, and if not treated promptly can cause death [7]. Sub involution can be prevented if we can know and minimize determinant factors affecting uterine involution, one of which can be seen from high of fundus uteri decline, especially in SC mother . This study purpose to analyze factors affecting uterine involution in post SC mothers

2. Method

Analytical research design, one group prepost test design to determine the effect of age, parity, and puerperal gymnastics to Uterine Involution in post SC mothers (with indicator of height of the fundus uteri decrease on the third day). A decrease in height of the fundus uteri was measured after giving puerperal gymnastics for 2 days.

Population in this research is post SC mother in hospital dr. Iskak Kabupaten Tulungagung. Samples were 33 respondents who did not initiate breastfeeding early, did not experience postpartum complications and get diet from the hospital. Sampling technique uses accidental sampling. Time of research, this research was conducted on October 1 - 31, 2016

Data analysis techniques, the characteristics of continuous data sample data are described in n, mean, SD, minimum and maximum. Characteristics of categorical data sample data is defined in n and percentage (%). To determine 2 paired samples has a mean value differently tested statistically with dependent t test.

3. Result And Discussion

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Description of respondent characteristics using univariate analysis. Univariate analysis aims to determine the number and percentage of the characteristics of respondents.

Table 1. Characteristics of study respondents

Age	quantity (n)	Persentase (%)
<20 years	1	3
20-35 years	27	81,8
>35 years	5	15,2
quantity	33	100
Parity	quantity (n)	Persentase (%)
Primipara	18	54,5
Multipara	15	45,5
Grandemulti	0	0
quantity	33	100

Based on table 2 at to getting data 27 respondents (81.8%) aged 20-35 years, 18 respondents (54.5%) including primipara.

Description for continuous data is presented in the form of minimum, maximum, mean and standard deviation analysis. Presentation of research variable data (continuous data) is aimed to know the average height of the fundus uteri first day, average height of the fundus uteri third day and average decrease of height of the fundus uteri.

Table 2 description of data, research variables average height of the fundus uteri first day, height of the fundus uteri day 3 and average decrease in height fundus uteri.

	n	Minimum	Maksimum	Mean	SD
height of the fundus uteri first day	33	11	14	13,18	0,808
height of the fundus uteri day 3	33	7	12	10,27	1,180
decrease in height fundus uteri	33	2	6	2.91	0,805

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Based on table 3, obtained of data, the average of height the fundus uteri first day of 13.18 cm, the average of height the fundus uteri of the third day of 10.27 cm and the average decrease of height the fundus uteri 2.91 cm.

Table 3. dependent t test results, about the relationship of age to hight fundal uteri of the third day

	N	mean	SD	t	p	
Age with a decrease of hight of fundus uteri	age	33	27,8	5,553	26,476	0,000
	decrease of hight of fundus uteri	33	2,91	0,805		
Parity with a decrease of hight of fundus uteri	parity	33	1,87	0,969	-7,041	0,000
	decrease of hight of fundus uteri	33	2,91	0,805		
puerperal gymnastics with a decrease of hight of fundus uteri	high of fundus uteri first day	33	13,18	0,808	20,764	0,000
	high of fundus uteri third day	33	10,27	1,180		

Based on table 4, the results show that there is an influence between age, parity and puerperal gymnastics with decrease the height of of fundus uteri, with p value 0,000 for age with decrease of height of of fundus uteri, p 0,000 for parity with decrease of height of of fundus uteri and p 0,000 for puerperal gymnastics with decrease of height of of fundus uteri third day

3.1. Age Relation with Uterine Involution

A decrease height of uterine fundus is one of the indicators, the occurrence of uterine involution in post partum mother (Bahiyatun, 2009). The uterine involution can be affected by maternal age at delivery. the Age of safe delivery at the age of 20-35 years. (Mayasari F, Meikawati W, Astuti R, 2015) Based on table 2, it was found that 27 respondents (81.8%) were 20-35 years old. And based on table 4 obtained the average age of respondents 27.8 years and there is a relationship between the age of respondents with decrease hight of fundus uteri on the third day with p value 0.000. The results of this study are in line with the above theory, by giving birth in the age between 20-35 years then the reproductive organs are ready to make changes including changes at the time of childbirth to return to the state before pregnancy (involution).

Uterine involution also runs normally, which is marked by a decrease in uterine fundus height in accordance with the expected target of 2 cm on the third day. According Bahiyatun [5] that the process of uterine involution accompanied by a decrease Hight of fundus uteri 1 cm per day. Can be interpreted on the third day there is a 2 cm drop. although respondents gave birth to SC, a decrease the Hight of fundus uteri did not experience any obstacles

3.2. Parity Relationship with Uterine Involution.

Parity is one of the factors that can influence the decrease height of uterine fundus in the puerperal mother [8]. Based on table 2, it is found that 18 respondents (54,5%) including primipara and based on

table 4 ge⁴ results which is significant between parity with a decrease in height of uterine fundus with a p value 0.000.

The results of this research, in line with the results of research conducted by Lisnawaty, Emawati and Hasmawati in 2015[8]. The more often a woman experiencing pregnancy and childbirth can increase the size of the uterus, in other words the size of the primipara uterus, multiparas and grandemultipara certainly be different. Primipara uterine size is smaller when compared with multiparous mother and grandemultipara mother. In addition, the strength of primiparous mother contractions is also stronger when compared with multiparas and grandemultipara. Mother multiparas and grandemultipara uterus often stretched along with the number of pregnancies and births experienced. The more often the stretched uterus can reduce the strength of uterine muscles to contract, this can affect the speed in

2.creasing the height of the uterine fundus during the puerperium.

The result of the research showed that there were 18 respondents (54,5%) including primipara. Primiparous mother has a uterine size and strong uterine contraceptive strength so that it can reduce the height of the uterine fundus according to the minimum standard of 2 cm on the second day. Although post SC mother, no obstacles in decrease of height of fundus uteri.

3.3. The Influence Of Puerperal Gymnastics To Uterine Involution

Puerperal gymnastics is one effort to strengthen uterine contractions [8]. This happens because of the increase of calcium ions in the extra cells that bind to the calmodulin. The bond causes regular muscle contraction and persistent uterine contractions [9]. This research provides puerperal gymnastics exercises on all respondents for 2 days, starting on the second day until the third day. According to Yuliarti [10] that puerperal gymnastics begins 24 hour after delivery and post-SC mother begins 2 days

6.ter or when the mother can wake herself out of bed.

Based on table 4, it was found out that the average fundus uteri height on the first day was 13.18 cm, and after performing the puerperal gymnastics for 2 days average height of fundus uteri the of the third day of 10.27 cm, with the average decrease hight of fundus uteri 2.91 cm, means that there is a significant influence between puerperal gymnastics with uterine involution which in this study can be seen from the result of measurement height of fundus uteri with p value 0.000.

contraction and retraction of the uterus lasting of a long time, causing clamping of blood vessels that cause blood vessels to rupture and blood circulation to the uterus is disrupted. This causes the muscle tissue to lack the necessary substances so that the size of uterine muscle tissue will shrink and the size of the uterus will also shrink. In addition, this lack of uterine circulation causes the uterus to have atrophy and the size will return to its original shape. the puerperal gymnastics is th³ most effective action to achieve a minimum uterine involution time on post partum mothers [8]. The results of this study are in line with previous theories and results of the study, although the respondents in this study were post-SC mothers, and only doing puerperal gymnastics for 2 days, can achieve normal uterine involution or decrease uterine fundal height effectively.

4. Conclusion

There is a relationship between age and involution of uteri that is statistic⁵y significant with p value 0.000. There is a relationship between parity and involution of uteri that is statistically sign⁵cant with p value 0.000. There is influence between postnatal gymnastics to uterine involution that is statistically significant with p value 0,000

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