



Combination of oxytocin massage and dried dates on the amount of postpartum hemorrhage and involution uterine in normal postpartum

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ABSTRACT

Background

The range incidence of postpartum hemorrhage from 5% - 15%, and 40%-50% is caused by a lack of adequate contractions. Oxytocin Massage can stimulate the release of oxytocin which plays an important role in uterine contractions after labor, while dried dates contain potassium as a neurotransmitter that affects of the uterine muscles and calcium which helps the blood clotting process.

Objective

Proving the combination of oxytocin massage and consumption of dried dates is more effective against the amount of postpartum hemorrhage and involution uterine in normal postpartum.

Method

Quasy experimental with posttest only design. Respondents were who gave birth in September 2018 as many as 45 respondents. Divided into 3 groups, the first group is the oxytocin massage intervention, the second group is the dried dates fruit intervention and the third group is the combination intervention. The statistical test used by *Friedman*, *Kruskal Wallis* and *Chi-Square*.

Results

The amount of postpartum hemorrhage at 2 hours postpartum $p > 0.05$. While 6 hours and 12 hours postpartum $p < 0.05$. The combination group showed the lowest average of 23 ml. While involution uterine at 6 hours postpartum $p > 0.05$ while on day 3 and on day 6 postpartum $p < 0.05$. The combination group showed the lowest average of 3.94 cm. The combination of oxytocin massage and dried date fruit is more effective against postpartum hemorrhage and involution uterine.

Conclusions and Recommendations

In additional midwifery service, the use of oxytocin massage and consumption of dried dates is highly recommended to amount of postpartum hemorrhage and involution uterine.

Keywords: Oxytocin Massage, Dried Dates, Postpartum hemorrhage, Involution uterine.

INTRODUCTION

Excessive uterine stretching, prolonged labor, and labor with action are among the risk factors that influence the occurrence of postpartum hemorrhage. Which if not addressed can lead to postpartum depression, hemorrhagic shock and even cause death. [1]

The frequency of postpartum hemorrhage in developed and developing countries ranges from 5% -15%, and from that number 40-50% is caused by a lack of uterine contractions. Adequate and followed by the loss of the placenta, 23-24%. In 2013 postpartum hemorrhage caused maternal mortality by 30.3% in Indonesia followed by hypertension as much as 27.1%. [2]

Oxytocin Massage can stimulate the release of the hormone oxytocin which plays an important role in labor, childbirth and breastfeeding.[3] In addition to oxytocin massage, another action that can help increase uterine contraction in postpartum is to consume dried dates because it contains Potassium which functions as a neurotransmitter that can affect against the work of muscle contraction while the calcium content plays a role in the process of blood clotting and prevents the body from losing a lot of blood. [4]

Dates also have a lot of glucose and fructose which is the most important source of energy in the body and is also the best food for the movement of uterine muscles that are very necessary during labor and after delivery, absorption of sugar in dates faster than rice which is 40 -45 minutes only. [5]

Study Objectives

Proving the combination of oxytocin massage and consumption of dried dates is more effective against the amount of postpartum hemorrhage and involution uterine in normal postpartum.

METHODS

This research is an *Quasy Experimental* with *Posttest Only Design*, Respondents were who gave birth at working areas of Banjarbaru Health Center South Kalimantan in September 2018 as many as 45 respondents. Divided into 3 groups, the first group is the oxytocin massage intervention, the second group is the dried dates fruit intervention and the third group is the combination intervention. which met the inclusion and the exclusion criteria. The sampling method used was *cluster sampling* and the statistical test used by *Friedman, Kruskal Wallis and Mann-Whitney*.

Data Analysis

Univariate analysis to calculate the mean, and standard deviation value intersection the characteristics of respondents. Bivariate analysis is used to determine the differences between research variables, the data are abnormally distributed so that it uses a non-parametric test. To test the amount of postpartum haemorrhage and involution uterine covery decrease in height fundus uterine using the *Friedman and Kruskal Wallis*, to test the type of *lochea* using *Chi square* <0.05.

RESULT

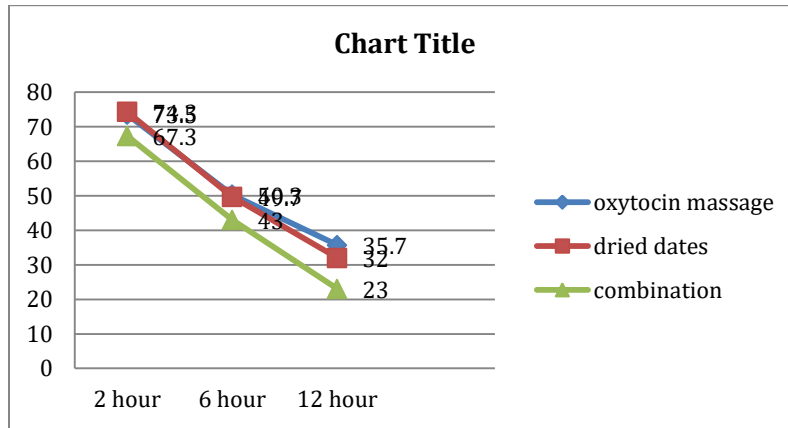
Univariate Analysis

The amount of Postpartum hemorrhage at 2 hours postpartum *p value* = 0.708 or *p* > 0.05. While at 6 hours and 12 hours postpartum *p value* < 0.05. Which means there is a significant difference in the amount of postpartum hemorrhage at 6 hours and 12 hours postpartum after giving intervention in each group.

Table 4.1 Average amount of Postpartum hemorrhage in Oxytocin Massage, Dried Dates and Combinations groups.

Group	Range of postpartum hemorrhage			P-value		
	2 hour Postpartum Mean ± SD	Δ	6 hour Postpartum Mean ± SD			
Oxytocin massage	73.5 ± 25	23.5	71.3 ± 19.5	14.6	67.3 ± 17.2	0.000 ^a
Dried dates	50.3 ± 14.9	24.6	49.7 ± 14	17.7	38 ± 9.9	0.000 ^a

Combination	32 ± 13.8	29.3	35.7 ± 11.1	20	23 ± 7.2	0.000 ^a
<i>p</i> -value	0.708 ^b		0.030 ^b		0.005 ^b	
<i>a.</i>	Friedman		<i>b.</i> Kruskal Wallis			



From the graph above it can be seen that the amount of postpartum haemorrhage in the combination group showed the lowest average value compared to other groups of 23 ml.

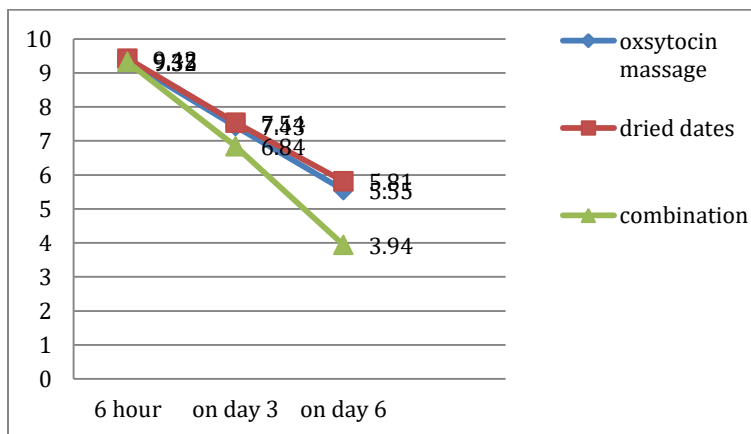
Involution Uterine recovery with measurements of height fundus uterine at 6 hours postpartum obtained a *p*-value = 0.89 or *p*>0.05. Whereas the

measurement of height fundus uterine on day 3 and on day 6 postpartum was found to be *p* <0.05, meaning that there was a significant difference in the decrease in uterine fundus height which was significant on day 3 and day 6 after intervention in all three groups was given.

Table 4.2 Average decrease of height fundus uterine

Groups	TFU (cm)					
	6 hour postpartum	Δ	On Day 3	Δ	On Day 6	<i>p</i> -value
	Mean ± SD	Mean	Mean ± SD	mean	Mean ± SD	
Oxytocin massage	9.35 ± 0.52	1.92	9.42 ± 0.60	1.88	9.32 ± 0.72	0.001 ^a
Dried dates	7.43 ± 0.68	1.88	7.54 ± 0.53	1.73	6.84 ± 0.59	0.001 ^a
Combination	5.55 ± 0.55	2.49	5.81 ± 0.52	2.91	3.93 ± 0.96	0.001 ^a
<i>P</i> -value	0.89 ^b		0.007 ^b		0.001 ^b	

a. Friedman *b.* Kruskal Wallis



From the graph above it can be seen that the average decrease of height fundus uterine on day 6 in the combination group showed the lowest average value compared to other groups which was 3.94 cm. in addition to the expenditure of *lochea* types on day 3 postpartum, most respondents with the type of *locheasanguinolenta* were 42 respondents (93.3%), some respondents were still with the type of *lochea rubra* as many as 3 respondents (6.7%), and $p = 0.343$ or $p > 0.05$. And on day 6 postpartum most of the respondents with *lochea serosa* were 31 respondents (68.9%). Some respondents were still with the type of *locheasanguinolenta* with 14 respondents (31.1%) and $p = 0.022$ or $p < 0.05$. So that it could be concluded that there were significant differences in *lochea* expenditure in the three groups.

DISCUSSION

Oxytocin massage around the connective tissue will increase beta endorphin levels and the oxytocin hormone where the mother will relax so that it can reduce stress so the hormone oxytocin

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will be produced without obstacles. In the IV period the delivery of the hormone oxytocin plays an important role in maintaining the contraction of the uterine muscles to prevent bleeding.⁶

Dried dates besides containing high potassium as a neurotransmitter which is very necessary to maintain the work of uterine muscle contraction in postpartum, dates also contain calcium which can help accelerate blood thickening activities so that it can reduce excessive bleeding during postpartum.⁷

CONCLUSION

The combination of oxytocin massage and consumption of dried dates is more effective and can be used as an alternative to the amount of bleeding and involution uterine.

Recommendation Future

Further researchers need to add the hormone oxytocin as a variable, and use larger samples and study longer involution uterine.

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