

Effectiveness Oxytocin Massage to Colostrum Release for Post Partum Pervaginam in Coastal Area of Surabaya

Hidayatus Sya'diyah, Sukma Ayu Candra Kirana, Navy Retno Octaviana W
Institute of Health Science, Hang Tuah Surabaya, Indonesia

Keywords: Oxytocin Massage, Colostrum Release.

Abstract: Colostrum is a breastmilk that is produced some time after the baby is born until the day of the third or fourth, the color is more yellow and more viscous than breast milk. The phenomenon that occurs in the community lack of knowledge about Early Breastfeeding Initiation so that mothers who have not issued a colostrum directly provide formula milk to the baby. Design of this research used Pre-Experimental design. The population in this study was postpartum mother who had not released colostrum. The research sampling technique used Non probability sampling with purposive sampling counted 6 mother. Independent variable in this research was oxytocin massage and dependent variable was the time of release of colostrum on vaginal postpartum mother. Instrument of questionnaire research on demography. Data were analyzed with Paired Samples T-Test. The results of this study found that the effect of oxytocin massage on postpartum vaginal mother who has not issued a colostrum with the result $\rho = 0.001$. Results obtained by postpartum vaginal mothers who have not released colostrum with $\rho = 0.001$. The implications of this study are the effect of oxytocin massage with colostrum release. Factors that affect breastfeeding of working mothers, stressful mothers, scuffed nipples, increased promotion of infant formula. As a task nurse we should educate the public about the importance of colostrum for the baby's immunity.

1 BACKGROUND

Colostrum is a mother's milk that is produced some time after the baby is born until day three or fourth, the color is more yellow and more viscous than the milk (Siti Nur Khamzah, 2012). Colostrum will stimulate the formation of immune system to function as active and passive immunization (Dwi Sunar Prasetyo, 2009). Colostrum can serve as an ideal laxative for cleansing unused substances from the newborn's gut, and prepares the baby's food digestive tract for future food (Siti Nur Khamzah, 2012). Breast Milk (breast milk) is the first, main and best food for babies, which is natural. Breast milk is an ideal source of nutrition with a balanced composition and in accordance with the needs of infant growth, which has good quality and quantity. Breast milk contains nutrients such as Colostrum, Protein, Fat, Lactose, Vitamin A, Iron needed for baby's brain growth. Breastfeeding (Mother's Milk) must be given to newborns to infants aged 6 months. The first 6 month old baby purely consumes breast milk where breastfeeding is given exclusively which still contains Colostrum.

Survey results of Indonesia Demographic and Health Institution (SDKI) 2013 Exclusive breastfeeding increased to 42% compared to 2012 as much as 32%. Data by Basic Health Research (Riskesdas) 2010 percentage of infants exclusively breastfed for up to 6 months was 15.3%. Early initiation of breastfeeding less than 1 hour after birth was 29.3%, highest in NTT (East Nusa Tenggara) 56.2% and lowest in Maluku 13.0%. Most breastfeeding takes place in the range of 1-6 hours after birth but still 11.1% of the process begins to be breastfed after 48 hours. Colostrum is quite well done by 74.7% of mothers to their babies. Provision of infant formula in newborn in South Sulawesi is 45,90% and that gives honey 16,20%. Based on preliminary study results that have been done by researchers there are 5 of 15 mothers who do breastfeeding first after giving birth.

The low level of exclusive breastfeeding in Indonesia is due to the minimal socialization of early breastfeeding initiation and the awareness and knowledge of the community on the importance of exclusive breastfeeding. According to the Director General of Nutrition and MCH (2011), the main

problem of low breastfeeding in Indonesia is the socio-cultural factors, the lack of knowledge of mothers, families and the community about the importance of breastfeeding, and the health ranks that have not fully supported breastfeeding. In addition, other factors cause the mother does not provide breastfeeding for the baby because the lack of encouragement from families such as husbands or parents can relax the mother's spirit to breastfeed and reduce the mother's motivation to breastfeed alone, so that mothers prefer milk cans as a substitute for breast milk. Other causes of mothers not giving breast milk are abnormal nipples or nipples are injured, also caused by increased stress on the mother giving birth. Increased stress causes the hormone cortisol also increases. As a result, with the increase of the hormone cortisol causes the production of the hormone oxytocin to be inhibited. The inhibition of the hormone oxytocin affects a small amount of breast milk release. Minor breastfeeding can be overcome with oxytocin massage.

The oxytocin massage is a spinal massage action from the 5th to the scapula that will speed up the work of the parasympathetic nerves to deliver the command to the back of the brain so that oxytocin is released (Suherni et al, 2010). As Lun et al (2002) writes in the European Journal of Neuroscience, that repeated massage treatment can increase the production of the hormone oxytocin. The effects of the oxytocin massage itself can be seen in reaction after 6-12 hours of massage (Lun, et al 2002).

2 METHODS

The design of this research is One-Group Pre test-Post test Design with Purposive Sampling techniques. The variable of this research is oxytocin massage and colostrum exposure on postpartum mothers. The research instrument consisted of SOP oxytocin massager, demographic data quizard and colostrum discharge observation sheet. this study aims to determine the effect of oxytocin massage on the expenditure of colostrum on the vaginal postpartum mother before and after the oxytocin massage. The collected data will be presented in the form of cross tabs tested using Paired T-Test samples.

3 RESULTS

Table 1: Effect of colostrum release prior to the administration of oxytocin massage in the Pomegranate

Midwife Practice of Coastal Area of Surabaya on March 6-April 27, 2017,(n = 6).

	Mean	Sdt. Dev.	min-max
Release of colostrum before in the oxytocin massage	1.33	.516	0-5cc

Table 2: Effect of colostrum release following the administration of oxytocin massage in the Pomegranate Midwife Practice of the Coastal Area of Surabaya on March 6-April 27, 2017.

	Mean	Std. Dev.	min-max
Release of colostrum after in the oxytocin massage	2,83	.408	>5cc

Table 3: Effect of colostrum release on oxytocin massage in Puskesmas Delima Practice Surabaya Coastal Area on March 6-April 27, 2017.

	n	Mean	Min-Max	Std Deviasi	P
Release of colostrum before treatment	6	1,33	0-5 cc	516	.001
Release of colostrum after treatment	6	2,83	> 5 cc	408	

Effect of colostrum release prior to the administration of oxytocin massage in the Pomegranate Midwife Practice of Coastal Area of Surabaya on March 6-April 27, 2017, (n = 6). shows that from 6 respondents the average of colostrum release before treatment is 1.33 cc, and min-max is 0-5 cc, the standard deviation is 516.

Effect of colostrum release following the administration of oxytocin massage in the Pomegranate Midwife Practice of the Coastal Area of Surabaya on March 6-April 27, 2017, (n = 6). Shows that of the 6 colostrum release respondents the increase in colostrum release after treatment was 2.83 cc, and the min-max release was > 5 cc standard deviation was 408.

Effect of colostrum release on oxytocin massage in Puskesmas Delima Practice Surabaya Coastal Area on March 6-April 27, 2017, (n = 6) shows that of 6 respondents in Practice Midwife Delima Coastal Area of Surabaya city average value of release of colostrum before giving of massage of oxytocin is 1,33 with lowest colostrum release 0 cc, and highest

is 5 cc, mean value after administration of the oxytocin massage was 2.83 with the lowest colostrum excretion <5 cc, and the highest > 5 cc.

Colostrum release after the administration of oxytocin massage has increased colostrum release. In addition, it can be seen that from the statistical test using Paired Samples Test T-Test with a significance level of 95% ($\alpha = 0.05$) obtained value of $p = 0.001$. It shows that $p < 0,05$ meaning that there is influence of giving of oxytocin massage to increase of colostrum release in Practice Delima Midwife Surabaya Coastal Area.

4 DISCUSSION

The data on colostrum release shows that from 6 respondents the average of colostrum release before treatment is 1.33 cc, and the lowest colostrum release is 0 cc and the highest colostrum release is 5 cc. The standard deviation is 516. Obtained respondents who took colostrum as much as 0 cc amounted to 4 people and respondents who secreted colostrum as much as <5 cc as many as 2 people. (Guyton, 2007) mentions that massage or stimulation of the spine neurotransmitter will stimulate the medulla oblongata send messages to hypothalamus dihipofise posterior releasing oxytocin which causes the breast to expel milk with a spinal area massage will also relax the tension and relieve stress and so the hormone oxytocin out and will help the release of breast milk, assisted with the baby's sucking on the nipple as soon as the baby is born with normal baby state. Found in respondents 4 mothers who become housewives and 2 people who work, in mothers who do not work spending more colostrum than working mothers.

This is done by the research done (Dr. MHD Arifin, 2004) which states that the post partum mother who work has a social busyness. Increased levels of women's participation in the labor force and their emancipation in all areas of work and in the needs of society leads to a decrease in the willingness of breastfeeding. According to research conducted by (Rani Juliastuti, 2011) that a mother who does not work can be said to be a mother who only performs his function as a housewife and spends much of her time at home without being tied to work outside the home so have ample opportunity to be able to perform breast care. While the mother who works outside the home does not have much opportunity to do breast care so that when post partum colostrum can not get out.

There are several factors that affect the release of ASI, namely: (a) psychological factors:

harmoniousness in the family, the inner peace of a mother in giving milk for her child. If the mother is depressed, anxious, and there is a problem or does not have the support of the husband, will affect the release of breast milk. (b) knowledge factor: lack of counseling to the community, one of the factors is due to lack of officers so that the public lacks knowledge and encouragement about the benefits of breastfeeding (Mochtar, 2007) by providing information in ways of healthy living, and how to avoid harm will increase public knowledge about it (Soekidjo, 2007). (c) Socio-Economy: The influence of the environment or advertising, working career women will be difficult to set the time to breastfeed her baby. (d) Other factors: Increased promotion of canned milk as a companion of breast milk (PASI), illumination or even false suggestion which originated from the mistake officer himself who advocated to use PASI, baby refused when breastfed because since birth day was first introduced PASI by health personnel so babies become confused nipples (Mochtar, 2007).

The research shows that of the 6 respondents colostrum release experienced an increase in the average increase in colostrum is 2.83 cc, and the lowest colostrum release <5 cc is and the highest is > 5 cc. The standard deviation obtained is 408. The benefits derived from the treatment of oxytocin massage is to increase breast milk, facilitate breast milk, help the mother psychologically, soothing, and not stress (Anik, 2016). According to researchers in addition to the benefits contained in the back massage (massage oksitosin) there is motivation from the family, the husband who always motivate.

From interviews to mothers, most mothers do not yet know what the oxytocin massage is. According to (Endah, 2011) in post partum mothers, not all breastfeeding directly because breast milk release is a very complex interaction between mechanical stimuli, nerves and various hormones that affect the release of oxytocin. Expulsion of the hormone oxytocin in addition influenced by baby sucking is also influenced by receptors located in the ductal system, when the ducts widen or become soft then the reflectoris issued oxytocin by the pituitary that plays a role to squeeze milk from the alveoli.

Results of research at the practice of midwife Pomegranate Area Surabaya showed that 6 respondents the average value of increased release of colostrum before the massage oxytocin 1.33 cc. According to (Endah, 2011) in post partum mothers, not all breastfeeding directly because breast milk release is a very complex interaction between mechanical stimuli, nerves and various hormones that

affect the release of oxytocin. Expulsion of the hormone oxytocin in addition influenced by baby sucking is also influenced by receptors located in the ductal system, when the ducts widen or become soft then the reflectoris issued oxytocin by the pituitary that plays a role to squeeze milk from the alveoli. Through a massage or stimulation of the spine, the neurotransmitter will stimulate the medulla oblongata to send a message directly to the hypothalamus in the hypofyse to release oxytocin causing the breasts to release their milk. This spinal massage also relaxes the tension and relieves stress and so the oxytocin hormone comes out and will help with breastfeeding, assisted by baby sucking on the nipple as soon as the baby is born with a normal baby (Anik, 2016).

Susanti, N. (2011). PERAN IBU MENYUSUI YANG BEKERJA DALAM PEMBERIAN ASI EKSLUSIF BAGI BAYINYA. 166.

Widuri, H. (2013). *Cara Mengelola ASI Eksklusif Bagi Ibu Bekerja*. Yogyakarta: Gosyen.

Nova, Eza (2016) *PENGARUH PIJAT OKSITOSIN TERHADAP PRODUKSI ASI PADA IBU NIFAS DI WILAYAH KERJA PUSKESMAS SUNGAI DAREH KABUPATEN DHARMASRAYA TAHUN 2016*. Diploma thesis, Universitas Andalas. di unduh pada tanggal 23 januari 2017 pukul 19.45 W

5 CONCLUSIONS

There is an effect of oxytocin massage on the release of colostrum on the vaginal postpartum mother. Postpartum colostrum of the vagina prior to the oxytocin massage is 1.33 cc. Most postpartum vaginal mothers in Practice Midwife Pomegranate Surabaya after doing the massage oxytocin can expend colostrum as much as 2.83 cc.

REFERENCES

- Alligood, M. R. (2017). *Pakar Teori Keperawatan*. Singapore: ELSEVIER.
- Asri Hidayat, S. (2010). *Asuhan Kebidanan Persalinan*. Yogyakarta: Nuha Medika.
- Atikah Proverawati, E. R. (2010). *Kapita Selekta ASI & MENYUSUI*. Yogyakarta: Nuha Medika.
- Khamzah, S. N. (2012). *Segudang Keajaiban ASI yang Harus Anda Ketahui*. Jogjakarta: FlashBooks.
- Nursalam. (2013). *Konsep Penerapan Metode Penelitian Ilmu Keperawatan*. Jakarta: Salemba Medika.
- Prasetyo, D. S. (2012). *Buku Pintar ASI Eksklusif*. Jogjakarta: DIVA Press.
- Rahayu, A. P. (2016). *Panduan Praktikum KEPERAWATAN MATERNITAS*. Yogyakarta: deepublish.
- Roesli, U. (2007). *Mengenal ASI Eksklusif*. Yogyakarta: Trubus Agriwidya.
- Rudi Haryono, S. S. (2014). *Manfaat ASI Eksklusif untuk Buah Hati Anda*. Yogyakarta: Gosyen.
- Setiadi. (2013). *Konsep dan Praktik Penulisan Riset Keperawatan*. Yogyakarta: GRAHA ILMU.
- Soetjningsih. (2012). *ASI PETUNJUK UNTUK TENAGA KESEHATAN*. Jakarta: EGC.
- Sunarsih, D. (2011). *Asuhan Kehamilan untuk Kebidanan*. Jakarta: Salemba Medika.