



Oxytocin Massage and Breastfeeding on Demand in the Uterine Involution Process

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ABSTRACT

Introduction: Involution begins as soon as the placenta is delivered. During uterine involution, the uterus will return to its pre-pregnancy state and (estimated) size.

Aim: The aim of this case study is to carry out comprehensive midwifery care to support maternity women the normal process of uterine involution includes IMD, oxytocin massage, and on demand breastfeeding.

Method: This research method is a case report of midwifery care. The subjects in this study were mothers who gave birth at the Independent Midwife Practice as many as 3 people.

Results: Correct breastfeeding techniques on demand because on-demand breastfeeding helps produce contractions by releasing the hormone oxytocin

Conclusion: Uterine involution progressed well until the 7th day postpartum, this was supported by a good process starting from the IMD process after the baby was born, followed by early mobilization, direct breastfeeding, and oxytocin massage.

Keywords: breastfeeding on-demand, oxytocin massage, uterus involution

Introduction

Involution begins as soon as the placenta is delivered. During uterine involution, the uterus will return to its pre-pregnancy state and (estimated) size. After the delivery of the baby, the uterus will contract to give birth to the placenta. The process of contraction and relaxation in the uterine muscle wall will compress the blood vessels. The narrowed blood vessels will prevent the loss of too much blood at the implantation site of the placenta (Cleveland Clinic, 2021).

Generally, the uterus returns to its initial size slowly within two weeks, otherwise, uterine subinvolution is feared. Uterine subinvolution is the failure of the uterus to follow the pattern of involution or the failure of the uterus to return to its pre-pregnancy size. The most common causes of subinvolution are retained placental fragments, infection, and late postpartum haemorrhage (Hadianti & Sriwenda, 2019).

This bleeding condition has a bad impact on maternal mortality and postpartum haemorrhage is still the highest cause of maternal death during delivery with a percentage of 38% (Kemkes RI, 2020). Efforts to accelerate the reduction in the incidence of bleeding during the puerperium are administering oxytocin injections during the second and third stages, controlled cord stretching, early initiation of breastfeeding (IMD), direct breastfeeding, and oxytocin massage (Cunningham F, Leveno K & Spong CY, 2014; Hesti et al., 2017).

Oxytocin is a hormone that can increase the entry of calcium ions into the intracellular. The release of the hormone oxytocin will strengthen the myosin bond so that the uterine contractions are stronger and the uterine involution process is getting better (Cunningham F, Leveno K & Spong CY, 2014). Midwives are the health workers who have a role in reducing maternal morbidity and mortality, by providing comprehensive services from pre-pregnancy to postpartum, for infants, and toddlers (UU RI No. 4, 2019).

Aim

The aim of this case study is to carry out comprehensive midwifery care to support maternity women the normal process of uterine involution includes IMD, oxytocin massage, and on demand breastfeeding with a midwifery care management approach, starting from assessing basic data, interpreting data, identifying diagnoses or potential problems, determining the need for immediate action, developing a plan of care, and administering care, as well as evaluation.

Methods

This research method is a case report of midwifery care with physiological client conditions. Data collection techniques were carried out by interview, observation, and documented based on midwifery management (Varney, 2010). The subjects in this study were mothers who gave birth at the Independent Midwife Practice as many as 3 people. The place of this research was carried out at TPMB from March to April 2022.

This observational research was conducted by obtaining a research permit from the research area and providing informed consent to the research subject which was then mutually agreed upon that the researcher guaranteed the confidentiality of the data.

Results and Discussion

Six (6) hours postpartum.

Client 1 (K1)

K1 with complaints of the stomach still a little heartburn. Vital signs BP 110/70 mmHg, pulse 80 x/minute, breathing 20x/minute, temperature 36.60C, symmetrical breasts, prominent nipples, colostrum has come out, uterine fundus height 1 finger below the centre, good uterine contractions, lochia rubra, empty bladder, and perform oxytocin massage.

Management is provided with counselling, information and education (IEC) about maternal nutritional needs, activity patterns (mobilization), exclusive breastfeeding or breastfeeding, direct breastfeeding, and breast care.

Client 2 (K2)

K2 with complaints that he still feels weak and has heartburn. BP 120/80 mmHg, pulse 84 x/minute, breathing 22 x/minute, temperature 36.50C, breast milk production (+) still low, TFU 1 finger below centre, empty bladder, slight bleeding.

The management was given KIE about the danger signs of postpartum, exclusive breastfeeding, the correct way of breastfeeding, mobilization, and doing oxytocin massage.

Client 3 (K3)

K3 with complaints that he still feels a little heartburn, breast milk production (+) is still low, nipple sinks, TFU 2 fingers below the centre, empty bladder, lochea Rubra.

The management is given by IEC regarding exclusive breastfeeding, the correct way of breastfeeding, and breast care.

Three (3) days postpartum.

Client 1 (K1)

K1 no complaints whatsoever. BP 110/82 mmHg, pulse 78 x/minute, breathing 20 x/minute, temperature 36.70C, profuse breastfeeding, the baby is breastfeeding well every 2 hours, TFU 2 fingers below centre, lochia rubra, no bleeding.

Client 2 (K2)

K2 has no complaints whatsoever. BP 110/76 mmHg, pulse 82 x/minute, breathing 24 x/minute, temperature 36.60C, TFU 2 fingers below centre, lochia rubra, no bleeding.

Client 3 (K3).

K3 no complaints whatsoever. BP 120/86 mmHg, pulse 88 x/minute, breathing 22 x/minute, temperature 36.90C, TFU 2 fingers below centre, lochia rubra, no bleeding.

Seven (7) days postpartum.

Client 1 (K1) does not have any complaints. BP 118/78 mmHg, pulse 80 x/minute, breathing 22 x/minute, temperature 36.70C, TFU mid-central symphysis, lochia sanguinolenta.

Client 2 (K2) does not have any complaints. BP 118/76 mmHg, pulse 84 x/minute, breathing 24 x/minute, temperature 36.30C, mid-symphysis and central TFU, lochea sanguinolenta.

The labour process in these three subjects occurred spontaneously and all subjects carried out the process of early initiation of breastfeeding (IMD) shortly after the baby was born and dried on the face, the IMD process was also one way to stimulate contractions (Mazidah & M, 2017).

For K1 and K3 at 6 hours postpartum the TFU position is 1 finger below the centre and for K2 the TFU is 2 fingers below the centre. All clients received the same intervention to help the involution process, namely by doing early mobilization from a lying to a sitting position, this is in accordance with the research that mobilization is able to help the process of uterine involution after childbirth (Indra Gunawan, 2017). Another intervention is to teach correct breastfeeding techniques on demand because on-demand breastfeeding helps produce contractions by releasing the hormone oxytocin (Nor Aini et al., 2017).

The difference in TFU size between K2 and K1 and K3 was caused by less active mobilization of K2 than K1 and K3. Another comparison is the process of oxytocin massage, in K1 and K3 oxytocin massage is carried out every morning and evening, in the morning by a midwife, and at

night by a client assistant (Fauzi et al., 2018). Meanwhile, massage in K2 is only done once for 3 days.

At the time of delivery, the effect of estrogen and progesterone on the pituitary disappears, triggering the influence of pituitary hormones, including lactogenic hormones, the effect of oxytocin causes the epithelial mammary glands to contract and milk production occurs (Cunningham F, Leveno K & Spong CY, 2014; Hadianti & Sriwenda, 2019).

Conclusion

Uterine involution progressed well until the 7th day postpartum, this was supported by a good process starting from the IMD process after the baby was born, followed by early mobilization, direct breastfeeding, and oxytocin massage.

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