

Literature Review

Antepartum Perineal Massages is Effective to Prevent Intrapartum Perineal Rupture

Pijat Perineum Antepartum Efektif Mencegah Ruptur Perineum Intrapartum

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Abstract

Objective: To provide a summary of evidence about the benefits and effectiveness of perineal massage in preventing perineal rupture during labour.

Methods: Evidence-based review of research articles with an evidence-based level 1a.

Results: Intervention of perineal massage not only reduced the incidence of perineal rupture but also reduced the incidence of episiotomy requiring stitches, as well as reducing perineal pain after 3 months of postpartum.

Conclusions: Perineal massage intervention is an intervention that is easy to do, effective, inexpensive, and has the potential to benefit more than the potential harm in preventing perineal rupture.

Keywords: intrapartum, perineal massage, perineal rupture.

Abstrak

Tujuan: memberikan ringkasan bukti penelitian tentang manfaat dan efektivitas dari pijat perineum dalam mencegah ruptur perineum selama persalinan.

Metode: evidence-based review dengan level evidence-based 1a.

Hasil: Intervensi pijat perineum tidak hanya menurunkan insiden ruptur perineum tetapi juga menurunkan insiden episiotomi yang membutuhkan jahitan, serta mengurangi nyeri perineum setelah 3 bulan postpartum.

Kesimpulan: Intervensi pijat perineum merupakan intervensi yang mudah untuk dilakukan, efektif, murah, serta mempunyai potensi menguntungkan lebih banyak daripada potensi merugikan dalam mencegah ruptur perineum.

Kata kunci: intrapartum, pijat perineum, ruptur perineum.

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INTRODUCTION

Vaginal delivery can cause rupture of the perineum and usually occurs in primiparous women which have never experienced labour before. Perineal rupture is damage to the genitalia due to labour both spontaneously and due to episiotomy. In addition, Injuries due to episiotomy are proportional to spontaneous second-degree perineal rupture.

The prevalence of episiotomy varies in various countries, ranging from 8% in the Netherlands to 14% in the UK, 50% in the US, to 99% in Eastern European countries. Asian ethnic women are very at high risk of experiencing severe perineal trauma because the anatomy of the perineum of Asian women is narrow and rigid so it is vulnerable to extensive tears, so that episiotomy is generally performed in Asian countries. Various studies show that the prevalence of episiotomy

cases in Iran reaches 88% - 97%^{1,2}. In Japan, an episiotomy is not a routine procedure, but the prevalence of episiotomy cases in Japan is 30% - 100% for primiparous and 10-70% for multipara. This shows that routine episiotomy for primiparous in several hospitals in Japan³. In Indonesia data on published episiotomy actions nationally are still very minimal, based on data from the National Hospital in Indonesia in 2000, the number of women undergoing episiotomy has reached 33%.

Perineal rupture due to labour can harm postpartum maternal health. Short-term health problems that arise include wound bleeding, perineal pain, longer postpartum recovery time so that it inhibits the bonding process between mother and baby. Perineal rupture also causes long-term problems including pelvic floor muscle weakness, urinary and faecal incontinence, dyspareunia, and wound infection³⁻⁹

Data from the Directorate of Maternal Health in 2013, causes of maternal death in Indonesia is still dominated by haemorrhage (30.3%), hypertension in pregnancy (27.1%), infection (7.3%), and other non-obstetric causes (40.8 %). Infection from perineal wounds is one of the causes of maternal death and complications of labour. Based on research, stated that women who suffered episiotomy wounds, or grade one to fourth-degree rupture, 83% experienced perineal infection, 11% had a perineal infection with two criteria and signs of infection (reddish wound and perineal pain), and 5% of women experienced perineal infection with three criteria and signs of infection (mucus smelling from the birth canal, perineal pain, and reddish wound)⁴.

Based on the background of the above problems, precaution against perineal rupture is very beneficial for several women who will give birth. In addition to reducing postpartum morbidity, it also saves costs in terms of reducing suturing, antibiotic and analgesic drugs⁹. Various actions or interventions performed by health workers to prevent perineal rupture include using compresses on the perineum before stage 2 of labour, recommending specific positions when the mother pushes, putting light pressure on the perineum at stage 2, teaching mothers to push only during contractions, and avoiding use vacuum and forceps if there is no indication, as well as massage the perineum at stage 2 and during pregnancy. The purpose of antenatal perineum massage is to increase elasticity in the perineum^{10,11}. This article is a summary of evidence detailing the benefits and effectiveness of perineal massage in preventing rupture of the perineum during labour.

RESULTS

This article is the result of a review of evidence-based on meta-analysis research articles. The review strategy was conducted in 3 steps in problem-solving using an evidence base including the first step authors formulating clinical questions. Then, the second step the authors conducted a literature search in several databases. To guarantee quality research articles, the authors used the boolean phase: (Pregnant * OR antenatal) AND (perineum massage OR perineum massage) AND (perineum trauma OR perineum trauma). The authors searched the PubMed Clinical Queries (Therapy, Broad) database by using the search term and we

selected a systematic review for critical appraisal because the consideration of RCT meta-analysis is the best evidenced in the hierarchical level of the intervention research design with the evidence-based level 1a. Based on the search results, we found 9 systematic reviews of 38 publications. The authors limited the search to the last 5 years of publication (2009-2014) and found 2 systematic review studies, namely Perineum Techniques During The Second Labour for Reducing Perineum in 2011 and Antenatal Perineum Massage for reducing Perineum trauma in 2013.

The author chose 1 (one) systematic review of the 2 (two) titles to do a review with the title Antenatal Perineum Massage for reducing Perineum trauma (systematic Review) written and published online library in 2013 at the Cochrane Database Systematic Review. The reason the author chose the journal is because of the most recent publication year and does not limit the sample at the second birth but at the first time (primiparous) also became the sample in this study. The third step the authors assess to assess the quality of data and the meaning of the findings. Assessment is done on components P-value, Risk Ratio (RR), Absolute Risk (AR), Number Need to Treat to Benefit (NNTB).

Based on the results of the review, we only performed calculations and interpretations from 3 research outcomes including the effect of perineal massage on trauma requiring stitches, the effect of perineal massage on episiotomy incidents, and the effect of perineal massage on perineal pain after 3 months postpartum in women who have had a vaginal delivery before. Whereas, the other outcomes did not address differences in the incidence of decreases in outcome between the control group and the treatment group so that the significance of the results was not calculated.

The Effect of Perineal Massage on Perineal Trauma that Requires Stitches

Based on the results of a meta-analysis, it showed that perineal massage treatment reduced the risk of perineal trauma incidence with a Risk Ratio (RR) of 0.91 (95% CI 0.86 to 0.96). The results of this study also showed that the Absolute Risk (AR) value of 0.7 (7%) meant that the absolute benefit of perineal massage treatment would reduce 7% of the incidence of perineal trauma requiring stitches (4 studies, with a total sample

of 2480 women). Perineal massage also provided considerable benefits. It was shown by the results of the calculation of Number Need to Treat to Benefit (NNTB) was 15 which means that in 15 women who receive perineal massage during pregnancy, at least 1 person will receive stitches in the perineum.

The Effect of Perineum Massage on Episiotomy Incidents

In addition to reducing the incidence of perineal trauma, perineal massage also reduced the incidence of episiotomy with a Risk Ratio (RR) of 0.84 (95% CI 0.86 to 0.96). The absolute benefit of a perineum massage treatment was to reduce 5% of episiotomy events (absolute risk reduction 0.05%). Based on the results of the calculation of Number Need to Treat to Benefit (NNTB) obtained 21, meaning that in 21 women who did perineal massage during pregnancy, only 1 will get an episiotomy. However, based on research, this treatment is only significant in women who have never given vaginal birth.

The Effect of Perineal Massage on Perineal Pain after Three Months Postpartum in Women who have had a Previous Vaginal Birth

In women who experience perineal tears or episiotomy, pain in the stitches and sores tend to persist for 1-3 months postpartum. Based on evidence-based results, perineal massage treatment could reduce the incidence of perineal pain after 3 months postpartum in women who have had a previous vaginal birth (Risk Ratio 0.45) with the absolute benefit of perineum massage treatment was an 8% reduction in the incidence of perineal pain at 3 months postpartum in women who have had vaginal deliveries before (absolute Risk Reduction 0.08). The results of the calculation of the Number Need to Treat to Benefit (NNTB) value were 13, meaning that of the 13 women who did perineal massage during pregnancy, only 1 will get perineal pain after 3 months postpartum.

Implications and Application of Evidence-Based Results in Practice

Perineal massage is the act of stretching perineal tissue by inserting 2 fingers that have been lubricated by 1.5-inch lubricating oil to the bottom of the vagina and massaging it slowly

downward with a U-shaped motion. Antenatal perineum massage is effective after 35 weeks' gestation, or 4- 6 weeks before labour for 10-15 minutes, every 1-2 times a week. Antenatal perineum massage can be done by the mother or her partner (husband). Perineal massage can be performed on pregnant women at least the last 4 weeks of gestational age (\pm 36 weeks) which have indications for vaginal delivery.

This evidence-based review has found that perineal massage is highly recommended because it can reduce perineal tears that require stitches, reduce the incidence of episiotomy, and pain in the perineum 3 months postpartum. According to the researchers' opinion, this intervention is highly recommended to apply in the maternal and child health services for (1) This evidence-based intervention is very effective in reducing the incidence of perineal rupture, episiotomy, and perineal pain 3 months postpartum and has no adverse effects. This intervention is very easy and can be done by mothers and her husband at home. This intervention is inexpensive because it does not require expensive equipment, only uses fingers and oil to perform perineal massage. This intervention does not require a long time which is only 5-10 minutes in 3-4 days a week. Health workers can follow up by telephone or daily diary from the mother.

CONCLUSION

Based on a review of the evidences above, it can be concluded that the perineal massage intervention has more beneficial potential than detrimental potential. Perineal massage can reduce perineal trauma that requires stitching, episiotomy, and perineal pain after 3 months postpartum in women who have had a previous vaginal delivery.

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