

A Study to Assess the Effectiveness of Infrared Radiation Lamp Therapy on Episiotomy Wound Healing among Postnatal Mothers Admitted in Era Hospital Lucknow (U. P.)

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Abstract: *Background of the study:* Gass MD (1986) 2 Stated that every woman who becomes pregnant has to undergo or cesarean delivery. Some time, it may be normal or forceps, vacuum or cesarean section. in normal process of delivery, perineum has to stretch far beyond its ordinary limits, as the baby is born. Most women body is capable of achieving this but some are not and the skin gives a way and tears. to prevent "just in case tears" an episiotomy is performed by health care provider or midwife. The wound should be assessed for edema, swelling, tenderness and discharge and also for localization pain. Puerperal infection is costly in terms of delayed mother infant interaction, lactation difficulties, prolonged hospital stay or readmission in hospital and increased expenses. 2 Henriksen TB, (1992-1999) 3 Described that Episiotomy is used widely today because it prevents lacerations heals better, easier to repair than a ragged tear, allows for easier and safer regression of the he ad thereby preventing possible brain damage reduced incidence of uterine prolaps in subsequent deliveries. If performed before, tissues are over stretched, shortens the second stage of labor and it may prevent painful hemorrhoids. It's also performed for a majority of forceps deliveries especially in ATCs (axis traction forceps) and also with breech and face deliveries. Previously for the care of episiotomy, moist heat application like sits baths and hot packs were used to be in practice. As advancement in science took place. Dry heat applications came into existence like electric heat lamps per light, infrared rays etc. Horwitz, (1999) 4 Stated that the most commonly used in non-pharmacologic treatment of wound healing is infrared. Research conducted Ho rwitz, 1998, showed a significant improvement in wound using monochromatic infrared therapy. This study examines the various types of wound healing from extremity by using infrared energy 890 nanometres (nm) monochromatic wounds were irradiated using an infrared experienced downsizing and can even be closed again after the use of monochromatic infrared energy, maybe it is associated with increased local concentration of nitric oxide. Increased nitric oxide has previously been shown to correlate with vasodilatation and anabolic responses. **Method:** The study was conducted with the purpose of effectiveness of infrared lamp therapy (IFR) on wound healing among postnatal mothers in Department of Obstetrics & Gynecology Era Hospital Lucknow, U. P. In this study pre-experimental design was applied. Purposive sampling technique was used and to assign the 30 postnatal mothers who met the inclusion criteria. The routine perineal care given to postnatal mothers then administration of infrared radiation lamp therapy twice a day (morning & evening) given and procedure continued same for 3 consecutive days, first day (after delivery 6 to 12 hr) before pre-assessment of episiotomy wound and in evening after therapy post-assessment of episiotomy wound healing for continued 3 days. Episiotomy wound was assessed by using observational check list REEDA scale. Data were collected pre & post intervention once in a day for 3 consecutive days. **Result:** The result revealed that there was significant effect of IFR therapy on episiotomy wound healing ($p < 0.001$). The study concluded that, infrared lamp therapy is an appropriate method of care for episiotomy wound healing level among women at puerperium period. The use of infrared lamps as a dry heat is a simple nursing intervention for postnatal mothers and modality for quicker wound healing and thereby enhancing comfort. **Conclusion:** From the findings of the study, it has been observed that infrared lamp therapy is beneficial on wound healing process. Infrared lamp therapy is a dry heat modality compared with other types of superficial heat therapy. It is a much simple, cost-effective complementary therapy and it also enables the nurses to provide holistic nursing care and prevent complications more effectively.

Keywords: Infrared Lamp Therapy, Episiotomy Wound

1. Introduction

Breast engorgement is a painful condition that affects postnatal women. It is associated with unsuccessful breastfeeding, mastitis, and breast inflammation. So, there is need to increase awareness regarding the importance of relief breast engorgement. Child birth is a process which is beautifully designed by nature, and also it is a joyous event for the women, family and caregivers. But that joyous event is also associated with some level of pain. The mother may suffer much distress after childbirth due to episiotomy wound and pain. An episiotomy is the surgical incision made to enlarge the vaginal opening for delivery of the baby's head. The episiotomy may be incised midline down the centre of the perineum, or the medio-laterally, which extends in a diagonal angle to either the left or 4 right side. With or without episiotomy, the perineum may suffer from

lacerations during childbirth. Padubidri. V (2006) 9 Explain that Inconsequence, mother need good wound care during postpartum. Trauma of perineum can cause considerable distress and discomfort for many women following childbirth that can affects the mental, social and physical wellbeing of the woman. Some have postpartum pain and discomfort, which may persist beyond as chronic pain and painful sex. In addition, infection, wound breakdown, urinary and faecal incontinence and other spectrum of adverse effect of treatment of trauma in perineum can make the postpartum period very unpleasant. While factors like suture techniques, operator skills and suture materials may affect pain and wound healing, different strategies have been used in order to promote perineum wound healing. Severity of discomfort was frequently under estimated and many women suffered without cause, very frequently in silence.

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2. Literature

Zaheera Saadia (2014) 26 a study conducted on to describe the rates and indicators for practice of episiotomy during normal labour and to compare them between women who have had one pregnancy (PG) and women who have already delivered two or more children (G2 and above). The study was conducted at Mother and Child Hospital, Buraidah from October-December 2013 as a descriptive cross sectional study. Overall rate of Episiotomy was 51.20%. Amongst the Primigravida all went through episiotomies however in G2 and above only 7 patients (4.69%) delivered with episiotomy. G2 and above had episiotomy for breech delivery. Episiotomy is a very common obstetric intervention (51.20%). The PG experience episiotomy significantly more often than G2 and above women. Efforts should be made to reduce its rates. This can be done by reviewing the indications and rates at repeated intervals and setting guidelines for these indications.

EO Izuka, (2014) 27 a study conducted on “to determine the prevalence, predictors, and outcomes of episiotomy among primi gravid women in Enugu, Nigeria”. The study was a retrospective cross-sectional review of labor ward records of women that had their first delivery at the University of Nigeria Teaching Hospital (UNTH) Enugu, over a 5-year of April 2004 to March 2009. Only women that had a vaginal delivery were included in the study. The result was prevalence of episiotomy in the study was 62.1%. The episiotomy rate for booked women (65.6%, 376/573) was significantly higher than that of unbooked women (39.3%, 35/89). The birth weights of babies delivered in the episiotomy group range was statistically higher than those of women who did not receive episiotomy. Prevalence of episiotomy among women that had their first births in the UNTH, Enugu was high, and the predictors included booked status of women, higher gestational age at delivery, and larger neonatal birth weight. More efforts should be made to reduce episiotomy rate in the hospital. 18

Priyankur Roy, et al (2015) 28 a study conducted on to determine the occurrence of perineal morbidity in women who delivered vaginally with an episiotomy versus those who delivered without. Primigravida women were enrolled into the study on documentation of full dilatation of the cervix and randomized into either the study group (delivered without an episiotomy) or Control Group (delivered with an episiotomy). Good. Right mediolateral episiotomy was given for the control group. Randomized control study done. The total number of patients studied was 300-equally distributed in both the groups. . In the study group, 22.0% patients had no lacerations in the perineum. In spite of an episiotomy, 15.34% had anterior and posterior perineal lacerations and in that 4.67% patients had anal sphincter tear. 9 patients had more than 50% of EAS torn but none of them complained of incontinence during their follow-up. 68.37% patients in the control group had persistent perineal pain for more than one week versus 19.42% in the study group. 4.27% patients in the control group had persistent pain whereas no patients in the study group had pain more than 2 months.

Amany A. et al (2015) 29 a study conducted on to assess incidence of postpartum urinary and faecal incontinence and

dyspareunia among women with routine episiotomy at the end of the postpartum period. A retrospective study was conducted on 400 women at the end of postpartum period who attended at maternity and children health care. Interviewed questionnaire form was done to collect data from women who underwent episiotomy and a second questionnaire to assess data of obstetricians in upper Egyptian hospitals. It was found that, delayed wound healing and gapping were significantly increased by high number of previous episiotomy, wound extension and/or hematoma and occurrence of postpartum wound infection. The majority of obstetricians convinced by necessity (86%) and favorable impact (59%) of episiotomy, and that 19 it decreases the risk of posterior perineal lacerations (57%). So as a result shows Routine episiotomy should be discarded and it decreases the risk of posterior perineal lacerations (57%). So as a result shows Routine episiotomy should be discarded and replaced by selective use in cases in which the likelihood of spontaneous laceration seems high

3. Method

A Pre-experimental research design was be used. **Independent variable:** administration of Infrared radiation lamp. **Dependent variable:** condition of episiotomy wound. **Demographic variable:** Age, parity, type of episiotomy, dietary patten, socio-economic status. The study was be conducted at **Era Hospital Lucknow (U. P)**. In the present study population was **postnatal mothers**. In this study postnatal mothers who had normal vaginal delivery with episiotomy (Right medio-lateral and left medio-lateral) is a sample and **Purposive sampling Technique** was be used to select a representation unit (sample) of the population.

4. Result

A total of 30 postnatal mothers were selected as sample to assess the effectiveness of level healing regarding episiotomy among postnatal mothers of selected Era Hospital Lucknow. Distribution of demographic study subject was done according to the categories as defined: The mean age of the subjects under study was 25.43 ± 3.37 years in which 13 (43.3%) subjects were belonging to the age group ≤ 25 years (min 20yr) and rest 17 (56.7%) were belonging to the age range > 26 years (max 35 yr). In the study, the primiparous subjects were 10 (33.3%) while multiparous were 20 (66.7%) In the study, left medio lateral type of episiotomy was found in 6 (20%) subjects while right medio lateral type of episiotomy was found in 24 (80%) subjects. Out of the selected subjects in the study, 14 (46.7%) were vegetarian and rest 16 (53.3%) were non vegetarian. Out of the selected subjects in the study, majority 28 (93.3%) have income below Rs 20000 and only 2 (6.7%) subjects have income between Rs21000-30000.

5. Conclusion

From the findings of the study, it has been observed that infrared lamp therapy is beneficial on wound healing process. Infrared lamp therapy is a dry heat modality compared with other types of superficial heat therapy. It is a much simple, cost-effective complementary therapy and it

also enables the nurses to provide holistic nursing care and prevent complications more effectively.

It is also provides a knowledge research base for nurses or other health care professionals for future research development or for replicating a similar study in a different setting.

6. Future Scope

The research findings have clearly provided support for the use of infrared lamp therapy intervention as an effective intervention on reducing episiotomy pain and improves wound healing pattern among postnatal mothers. Infrared lamp therapy is a modality that is non-invasive, cost free and a non pharmacological intervention for postnatal mothers with episiotomy.

The IFR therapy as the main part of postpartum care for the women to improve wound healing during postnatal period. Future research can be replicated in different settings with similar intervention techniques or with a large sample. It is also provides a knowledge research base for nurses or other health care professionals for future research development or for replicating a similar study in a different setting. The uses of infrared lamp therapy enhance the care to postnatal mothers and help to prevent complications. Future studies should also include long term follow up measures to evaluate the persisting effect of infrared lamp therapy as well as the interval between therapy, the duration and distance of the therapy.

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