Research Paper

Volume : 4 | Issue : 5 | May 2015 • ISSN No 2277 - 8179

Effectiveness of Cooling Gel Pads on Episiotomy Pain Reduction and Promotion of Wound Healing Among Postnatal Mothers

Nursing

KEYWORDS : Cooling gel pad, Episiotomy, perineal pain, perineum, wound healing

Angel Rajakumari .G Professor, Annai Dora College of Nursing, Aundipatty, TamilNadu, India

ABSTRACT

Aim: To evaluate the effectiveness of cooling gel pad on episiotomy pain reduction and promotion of wound healing among postnatal mothers.

Participants and setting: The study was conducted in Vijaya Hospital, in Suryapet, Telugana, India in with 700 annual births. The primi gravida mothers were recruited and were allocated by non-probability purposive sampling technique into the 30 of them for study group participants.

Intervention: The study group received cooling gel pad to apply the episiotomy wound area of the mother. The cooling pad gel was given by investigator for 20-30 minutes again the same step is repeated in a morning and evening session for four times.

Measurement and finding: The women completed the demographic and obstetrical information and pain was measured by 0- 10 Modified combined numerical categorical pain intensity scale and REEDA Scale assessed by the episiotomy wound.

This study revealed that there was high significant difference found in pain at p<0.001level of study group.

Conclusion: The evidence that the use of a specifically designed cooling gel pad is a safe and effective localised method to alleviate perineal trauma without any adverse effects on healing

INTRODUCTION

Perineal trauma can cause considerable distress and discomfort to many women following childbirth. Its severity is frequently under-estimated and many women suffer unnecessarily, often in silence, Perineal pairs in the early postnatal period has been reported to be one of the most common causes of maternal morbidity (Sleep 1990).

Women of child bearing period are a vulnerable group. Women during postnatal period are subjected to a higher risk of morbidity and mortality from various causes like perineal pain and discomfort, episiotomy infections, pueprial sepsis etc. perineal pain in the early postnatal period is one of the most common causes of maternal morbidity (sleep, 1990 as cited by steen et, al., 2000).

The study described here was designed to use this tool to test the effectiveness of a new cooling device (maternity gel pad) at alleviating perineal trauma and compare this with the two standard treatment regimes (ice packs and Epifoam) at the study hospital. Women's opinions were also rated as to how effective they considered their treatment to be. The use of a new device (maternity gel pad) is more effective at reducing levels of perineal oedema, bruising and pain in post-delivered women following an instrumental delivery when compared with standard regimes (ice packs and Epifoam) at the study hospital.

The use of a new treatment (cooling gel pad) is more effective at reducing levels of perineal pain, edema and bruising following either a normal or an instrumental delivery involving the suturing of an episiotomy or second degree tear when compared with the standard regimen (ice pack) or no localised treatment.

MATERIALS AND METHODS

This was a randomized interventional study .The study will be conduct in the post natal ward of vijayalakshmi maternity hospital at suryapet. Formal approval was obtained from the institutional review board and from the labour room director of the vijayalashmi hospital suryapet to conduct the present study. The hospital consists of 160 beded hospital with 50 beded post natal ward and 3 labour tables and has a census of around 55-60 deliveries per month. The study population comprises of all the post natal mothers who had normal vaginal deliverywithepisiotomy. Postnatal mothers were recruited and were allocated by non probability sampling technique into the study. 30 of them were allotted to study group. The inclusion criterion for sample selection includes post natal mothers who had delivered vaginally with an episiotomy after 12-15 hours of delivery. Pre-assessment done for the both experimental group with visual analog scale and REEDA scale. 15 minutes. 20-30 minutes for intervention in the morning and evening session for 4 times. 1st day evening assessed post assessment for the postnatal mothers. Second day also repeated the same procedure.

The questionnaire for present research study comprises of three sections.

Section I:

It consists of demographic variables of the primi gravida mothers such as age, education, area of residence, type of family and gestational age.

Section II:

Modified combined numerical categorical pain intensity scale, which is a modified pain scale selected for the assessment of the labour pain. The scale is grouped into five categories.

0	-	No pain
1 – 3	-	Mild pain
4 – 6	-	Moderate pain
7 – 9	-	Severe pain
10	-	Excruciating pain

Section III :

REEDA Scale assessed by the episiotomy wound.

REEDA TOOL was adopted from N. Davidson (1974). REEDA scale is used to asses condition of episiotomy wound. REEDA has consisted of redness, edema, echymosis, discharge and approximation of edges is a scale for grading the severity of perineral trauma associated with episiotomy (or) laceration associated with delivery.

PROCEDURE

The patient in the lateral sims position 4cm wide piece of paper tape is placed so that its midline run along the length of the wound. REEDA scale consists of 0-3. REEDA tool scale as a range of between 0-15.

Complete healing

1-15 - Incomplete healing. This will be

RESULTS

Table 1: Comparison of pre and post test level of pain among postnatal mothers in Experimental group

Domain	Maternity cooling gel pad		
	Mean	Standard Deviation	P Value
Pre pain	6.10	1.32	F test= 102.169
Post One pain	4.00	1.52	
Post two pain	1.20	1.78	

Above the table 1 shows the cooling gel pad post natal mothers of pre pain level of mean value is 6.10 and Standard Deviation is 1.32. A sum of Post one pain was minimum reduced, the level of mean value is 4.00 and standard deviation 1.52, A sum of Post two pain was most reduced, the level of mean value is 1.20 and Standard Deviation 1.78. So there is a statistical difference within the group from Post one pain to the post two pains. The P Value is (<0.001) ** highly significant.

Table 2: Comparison of pre and post test level of Reeda among postnatal mothers in Experimental group

REEDA	Maternity cooling gel pad		
	Mean	Standard Deviation	P Value
Pre pain	7.28	1.66	Ftest= 202.383 df= 2 P=<0.001
Post One pain	4.08	2.69	
Post two pain	0.62	0.63	

Above the table 2 shows the herbal tea sitzbath of postnatal mothers pre REEDA level of mean value is 7.2 and S.D. is 1.66. A sum of post one REEDA was minimum reduce the level of mean value is 4.08 and Standard Deviation is 2.69, A sum of post two REEDA was most reduced the level of mean value is 0.62 and Standard Deviation is 0.63. So there is a statistical difference within the group from post one REEDA to the post two REEDA. The p value is P= (0.001)xx highly significant.

Table 3: Comparison of pre and post test mean difference level of Reeda of the postnatal mothers.

Reeda

Experimental group				
Mean Difference		S.D	T-Value	P-Value
Pre-Reeda post-1 day Reeda	3.2	2.75	2.06	P=<0.05*
Pre-Reeda post-2 day Reeda	3.2	9.16	8.48	P=<0.05*

DISCUSSION

Mother's reported the gel pad to be also effective at relieving pain and itching associated with hemorrhoids. Cooling treatments are not readily available for use in mothers' own homes, therefore, many mothers will improvise and use frozen packs of peas as recommended by Jane Hatt (1991). The findings of this trial has provided evidence that a specially designed cooling gel pad can comfortably alleviate the symptoms of perineal trauma and most importantly the associated pain during the first two weeks following childbirth.

The timing of the first treatment was decided by the individual women, provided this occurred within four hours of delivery. The high level of oedema and pain seen at: initial assessment indicates that localised treatment should be applied as soon as possible after suturing. Since 80% of the women received epidural anaesthesia, these women would be unlikely to experience the full extent of the pain caused by the perinea! trauma within the first: four hours, although perineal oedema was visible. Earlier application of treatment would probably have reduced this initial oedema and contributed to a lower level of pain during the following 48 hours.

The maternity gel pad has been shown in this study to have a greater effect on perineal oedema, bruising and pain than the comparison treatments. This may be explained by the closer approximation to the traumatised tissues resulting from the use of a specially shaped gel pad. In addition, the gel composition was designed to have a higher thermal capacity than ice and to remain pseudo-plastic at temperatures down to -30°C. This allowed the pad to be moulded around the vulval and perineal regions even at the point of removal from the freezer, unlike the ice packs. It is also likely that the larger surface area of the gel, pads will ameliorate the pain associated with hyperalgesia of the area surrounding the episiotomy wound.

Some women not in the trial and who were suffering from perineal trauma asked midwives if they could use a gel pad. This caused an ethical dilemma and refusing these women made the midwives feel very uncomfortable. It was reported that one Asian woman who spoke limited English had asked for a 'Mary pad'. She had overheard the overall co-ordinator's first name and this in turn was interpreted as the name of the new device.

The apparent reduction in perineal oedema, bruising and pain found with the maternity gel pad and its higher rating in women's opinions support the need for further investigation of this new form of treatment in both instrumental and non-instrumental delivered women. A large clinical trial to extend this initial study to these groups in both the hospital and home setting has been funded by the NHS Executive in the form of a research fellowship to one of the authors (MPS).

CONCLUSION

There was evidence that localized cooling treatments are effective in alleviating perineal pain, which was in favour of the cooling gel pad..A reduction in the use of oral analgesia was reported in favour of the cooling gel pad of postnatal mothers (P<0.001). women satisfaction levels with oral analgesic were similar within the treatment group but a higher level of satisfaction when assessing localized treatment was reported by the cooling gel pad group(P<0.001).

REFERENCE

1.Grundy L. (1997) The role of the midwife in perineal wound care following childbirth. British Journal of Nursing 6:10 584-588. | 2.EvindaCE, Febai PO, Anya SE, Okpani AO.,(2011),Episiotomy and perineal trauma prevalence and obstetric risk factors in Port Harcourt at Nigeria,;16(3) | 3. Elizabeth,Jeyapal Merlin,(2009),Effectiveness of Infrared radiation therapy on pain perception and wound healing among Primi postnatal mother on episiotomy wound healing. Journal of Nursing research society of India; Vol. 01(04). | 4. Michele S.,(2006), Effectiveness of Sitz bathversus Self perineal care on episiotomy wound healing. | 5. Sali A., (2007),Effects of Sitzbath versus GuggulDhupan on pain related to episiotomy on postnatal mothers;Vol.1(2). | 6. Department of Obstetrics and Gynaecology, University of HongKong.Epidemiological variables associated with episiotomies and otherpuerperal complication in Queen Mary Hospital at HongKong. Journal of Obstetrics and Gynaecology. (2007) | 7. PuvanaT.,(2010),Video assisted Teaching module of puerperium. Nurses of India;Vol.11 (5). | 8. Post Episiotomy pain. Warm versus cold Sitzbath.Journal of Obstretrics and Gynaecology and Neonatal Nursing: (1995) Vol.18 (5). | 9. Hendrickson B T.,(2011),Episiotomy and perineallesions spontaneous vaginal deliveries.,10(2). |