



ORIGINAL RESEARCH PAPER

Nursing Science

A QUASI – EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF NORMAL SALINE VS BETADINE APPLICATION ON EPISIOTOMY WOUND HEALING AMONG POSTNATAL MOTHERS IN G.G.S MEDICAL HOSPITAL, FARIDKOT, PUNJAB.

KEY WORDS: Normal saline, Episiotomy wound healing, Betadine.

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ABSTRACT

A Quasi – Experimental Study To Assess The Effectiveness Of Normal Saline Vs Betadine Application On Episiotomy Wound Healing Among Postnatal Mothers In G.G.S Medical Hospital, Faridkot, Punjab. Healing after episiotomy has reported as the common cause of maternal comfort in postnatal period. Studies have shown that normal saline is effective in episiotomy wound healing. The study aimed to assess the effectiveness of normal saline on healing of episiotomy wound in order to improve nursing care practices and to provide maximum comfort to postpartum women. The research design was quasi experimental and was conducted from December 2013 to January 2014 in Obstetrics department of G.G.S Medical Hospital on 60 subjects (30 for experimental and 30 for control group) of Faridkot, Punjab. Intervention in experimental group was application of normal saline in experimental group and administration of betadine in control group. The socio- Demographic sheet which was structured interview schedule was filled by investigator. Healing of episiotomy was assessed by using REEDA scale at 24 hrs, day 3 and day 5. The results of the study revealed that most of study subjects experienced mild to good episiotomy wound healing. Normal saline helps in episiotomy wound healing in experimental group from day 1 to day 5. Normal saline was not more effective in episiotomy wound healing from day 1 to day 3 in experimental group as compared to betadine in control group. No association of episiotomy wound healing with age, education, dietary habits, gravida, , Hb level, duration of rupture of membranes, duration of second stage of labour, length of episiotomy, number of sutures and was found in the study. Hence it can be concluded that betadine is more effective than normal saline in healing of episiotomy wound.

INTRODUCTION

“Giving birth should be your greatest achievement not your greatest fear.”

~ Jane Weideman

BACKGROUND

Vaginal tears can occur during childbirth, most often at the vaginal opening as the baby's head passes through, especially if the baby descends quickly. Tears can involve the perineal skin or extend to the muscles and the anal sphincter and anus. Care of episiotomy would begin immediately after delivery and should include a combination of local wound care and pain management. Betadine is widely used in the hospitals for the healing of episiotomy wound. It is an antiseptic skin cleanser. It contains providine iodine 10%. It helps to reduce bacteria that potentially cause skin infection. Simple principle of episiotomy wound healing is good blood flow, oxygen, nutrients, and absence of infection.

Need For The Study

Mothers however suffer much distress after child birth due to a painful perineum following episiotomy. A current medical literature documented that 60% of women with episiotomies reported severe postpartum pain, 25% experienced infection at the site and 20% had problems with intercourse for up to 3 months after birthing. Hence it is evident that special care must be taken to prevent infection, hasten healing and reduce scar. A comparative study was conducted to assess the effects of normal saline with other solution for wound cleansing. The aim of the study to promote the healing of episiotomy wound. The study had 11 trials which included 310 postnatal mothers. The findings suggest that 62.9% of mothers treated with normal saline had good healing. The mothers (38%) treated with other solutions had got skin irritation. The result shown that normal saline is effective in reducing the infection rate than any other solutions. The study concluded that normal saline can be used as a healing agent which will not interfere the normal healing process.

Even though the application of normal saline is an effective method of healing the episiotomy wound, it is not widely used like other treatments. Hence the researcher felt the need to evaluate the effectiveness of application of normal saline in the healing of episiotomy wound.

Aim Of The Study

Aim of the study is to assess the effectiveness of application of normal saline vs betadine solution on healing of episiotomy wound among postnatal mothers.

OBJECTIVES

1. To assess the effectiveness of normal saline application on episiotomy wound healing among experimental group.
2. To assess the effectiveness of betadine solution application on episiotomy wound healing among control group.
3. To compare the post- test level of healing of episiotomy wound among postnatal mothers between experimental group and control group.
4. To associate the post-test level of healing of episiotomy wound among postnatal mothers with their selected variables.

Research Variables

Independent Variable

- Normal saline application.
- Betadine application

Dependent Variable:

- Episiotomy wound healing

Delimitations

Study is delimited only to postnatal mothers admitted in maternity ward of G.G.S Medical Hospital, Faridkot, Punjab.

Operational Definitions

1. **Effectiveness:** It refers to the extent up to which episiotomy wound will be healed by using normal saline or betadine solution that will be elicited by REEDA scale.
2. **Normal saline:** It refers to an isotonic solution which do not interfere in the normal healing process of episiotomy wound.
3. **Betadine:** It refers to the povidine iodine solution which release iodine and hence enhance fibroblast production which leads to healing of episiotomy wound. It is used as normal hospital routine practice.
4. **Healing of episiotomy wound:** It refers to the ability of

perineal skin to regain back in its original pattern after normal saline and betadine application on episiotomy wound and healing is measured by REEDA scale.

- 5. Postnatal mother:** It refers to mothers who undergone normal vaginal delivery with episiotomy.

METHODOLOGY

Research Design

For the present study Quasi-experimental (time series non-equivalent control group post test only design) is utilized to achieve the stated objectives.

Selection And Description Of Research Setting

The present study was conducted in Obstetrics and Gynecological department of G.G.S Medical Hospital Faridkot.

Study Population

According to (Polit and Beck 2008) "population refers to the aggregate or totality of all the objects, subject or members that conform to a set of specifications. Population of the present study was the postnatal mothers with episiotomy in G.G.S Medical Hospital, Faridkot.

Sample And Sampling Technique

Purposive sampling technique was used to select the sample. A total sample of 60 postnatal mothers out of which 30 assigned to experiment group and 30 to control group.

Criteria For Sample Selection

Inclusion Criteria: The study includes postnatal mothers

1. Who have normal vaginal delivery with episiotomy.
2. Who will be available at the time of data collection and willing to participate.

Exclusion Criteria: The study excludes postnatal mothers

1. Who were having immediate postnatal complications like primary postpartum haemorrhage, shock.
2. Who had infected perineum or skin infections.
3. Who had 3° or 4° perineal tear.
4. Who were not willing to participate in the study.

Description Of The Tool

Part I: - Socio-demographic profile.

Sociodemographic data profile consists of age, education, dietary habits, gravida, Hb level, duration of rupture of membranes, duration of second stage of labor, length of episiotomy, number of sutures. The socio demographic profile which was structured interview schedule was filled by investigator.

Part II: - Standardized tool to assess the healing of episiotomy wound (REEDA Scale)

Criterion Measures

The criterion measure used in the study was REEDA scale which is a standardized scale as to assess the healing of episiotomy wound for which score

- 0-2 -Good wound healing,
- 3-5- Moderate wound healing,
- 6-8- Mild wound healing,
- 9-15- Poor wound healing.

Pilot Study

Pilot study was conducted on 6 subjects, 3 for experimental group and 3 for control group to ensure the reliability of the tool and feasibility of the study. The Cronbach's alpha was applied. The Cronbach's alpha for REEDA scale was 0.715; hence the tool was considered to be reliable. It was conducted from December 5, 2013 to December 10, 2013. The time spent on each subjects was 25-30 minutes.

Reliability Of Tool

Try out and reliability of the tool was estimated by inter-rater

reliability method. The tool was used by two observers simultaneously and independently on the same subjects at the same time. Inter-rater reliability was confirmed "r" was 0.89.

Plan For Analysis

Data analysis was done as per the objectives of the study. Statistical analysis was performed using SPSS version 16.0 software. The data was analyzed by using descriptive and inferential statistics – Repeated measures of ANOVA, t test, Chi square, S.D, and mean. Bar graphs were used to depict the findings. 'p' value at 0.05 was considered statistically significant.

Findings Related To Comparison Of Effectiveness Of Normal Saline Versus Betadine On Healing Of Episiotomy Wound

Comparison Of Effectiveness Of Normal Saline Versus Betadine On Healing Of Episiotomy Wound

N=60

Days	Experimental Group (N=30)		Control group (N=30)		t value	p-value
	Mean	S D	Mean	S D		
1	2.20	0.40	1.97	0.71	1.54	0.13NS
3	0.97	0.71	0.57	0.67	2.21	0.03*
5	0.43	0.56	0.07	0.25	3.22	0.00*

*Significant at p<0.05

df=58

NS= Non significant at p<0.05

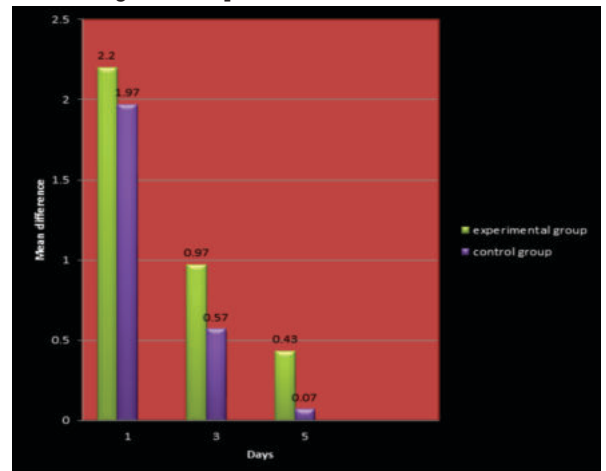


Figure 9: Bar graph showing the mean difference of normal saline versus betadine on healing of episiotomy wound in experimental and control group

Table depicts that in experimental group on day 1, mean score was 2.20 and when it reduced to 0.43 on day 5. In control group day 1 mean score was 1.97 and on day 5 mean scores reduced to 0.07. The obtained mean difference on day 1 was found to be statistically non significant on "p" value < 0.05 whereas on day 5, there was difference between experimental and control group in healing of episiotomy wound.

Hence it was concluded that betadine was effective than normal saline application. It revealed that episiotomy wound healing was faster in control group than in experimental group.

DISCUSSION

Present study proves that betadine was more effective in wound healing. This was supported by Walker SR & Smith A. (2013)⁴. He conducted a randomized, blinded study to assess the effect of povidine-iodine on the groin wound of patients undergoing primary varicose vein surgery. There was a reduced incidence of groin wound infections in those randomized to betadine.

Limitations OfThe Study

1. Sample size of the study was small including 30 for experimental and 30 for control group. Hence it is difficult to make broad generalization.
2. Purposive sampling was done from the G.G.S Medical Hospital, Faridkot, Punjab which restrict the generalization of the study findings to the particular setting.
3. Due to short stay of the patient in the hospital during postpartum period the frequency of intervention was less which again restricts the generalization of the study findings.

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