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## A study to assess the efficacy of Aloe Vera pulp application on episiotomy wound in postnatal mothers in selected hospitals of Pune city

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### Abstract

Pregnancy and child birth are special events in a woman's life. Mothers suffer much distress after child birth due to painful perineum. Aloe vera has been used for many centuries as a natural remedy for many different ailments. The pulp of aloe vera plant leaves is rich in vitamins, minerals and antioxidant. Aloe vera, the plant can be snapped off and placed on cuts and burns for immediate relief. Studies have shown aloe vera can help promote healing of the skin.

**Aim:** Assess the efficacy of aloe vera pulp application on episiotomy wound in postnatal mothers.

**Materials and Methods:** Quasi experimental descriptive research design was used for this study. It was carried out on 60 postnatal mothers as a samples. The purposive sampling technique was used to data was collected using modified observational Checklist REEDA scale. Data analysis was done mainly using descriptive statistics.

**Results:** The findings of the study were discussed with the objectives and hypothesis stated. The present study was undertaken to assess the efficacy of aloe vera pulp application on episiotomy wound in postnatal mothers in selected maternity hospitals of Pune city.

**Conclusion:** Aloe vera pulp application was effective on episiotomy wound in postnatal mothers.

**Keywords:** Assess, the efficacy, aloe vera pulp application, episiotomy wound

### Introduction

Pregnancy and child birth are special events in a woman's life. Mothers suffer much distress after child birth due to painful perineum. Perineal pain is most commonly associated with child birth by vaginal delivery. Pain following episiotomy appears to be universal. The mother undergoing episiotomy is characterized by greater blood loss in conjunction with delivery, and there is a risk of improper wound healing and increased pain during early puerperium. Various interventions are found to aid the healing process, which include cleanliness, applying ice pack, topical application of aloe vera gel dry heat sitz bath, performance of Kegels' exercise and perineal care episiotomy is a common surgical procedure performed during the second stage of labor <sup>[1]</sup>.

An episiotomy is an incision made to make the delivery of baby easier for mothers. Some doctors perform an episiotomy routinely during childbirth to prevent tears during delivery. Wound healing involves a complex series of interactions between different cell types, cytokine mediators, and the extracellular matrix. The phases of normal wound healing include homeostasis, inflammation, proliferation, and remodeling. Each phase of wound healing is distinct, although the wound healing process is continuous, with each phase overlapping the next. Most of the doctors prescribe pain relieving medications such as paracetamol and antiseptic creams to avoid infections. Besides, one can follow certain small measures that may promote faster healing <sup>[2]</sup>.

Aloe Vera plants are easy to rise, requiring no special care and it needs occasional watering. They do best in bright sunlight and do not tolerate temperatures below 45 degrees. For this reason, in most parts of the country aloe vera is raised as a houseplant. It is a popular remedy for sunburn and skin rashes. According to the National Institutes of Health, studies have shown aloe vera can help promote healing of the skin <sup>[3]</sup>.

### Need of the study

Today, the expense of medical treatment is rising high and the care of patient with episiotomy can be economically done if the nurse with their competencies and skills provide various remedial measures for wound healing. Self-perineal care is the most cost effective way for wound healing. Many women who have just given birth have a new baby and also have a new wound to care for <sup>[4]</sup>.

Episiotomy, incision of the perineum at the time of vaginal childbirth, is a common surgical procedure experienced by women in the world. Among 1,20,243 vaginal deliveries, episiotomy was performed in 63.4 percent (n=76,305) cases. Nulliparous women were 8.8 times more likely to undergo episiotomy than multiparous women. A survey conducted among eleven developing countries including India across the Global Network for women's and children's Health Research sites (2003) reported over 90% episiotomy rates among nullipara though overall rate was about 40% <sup>[5]</sup>.

Aloe vera has been used for many centuries as a natural remedy for many different ailments. The pulp of aloe vera plant leaves is rich in vitamins, minerals and antioxidant. Aloe vera, the plant can be snapped off and placed on cuts and burns for immediate relief. It is a popular remedy for sunburn and skin rashes. The slightly sticky gel inside each leaf soothes the skin and, according to the National Institutes of Health, studies have shown aloe vera can help promote healing of the skin <sup>[6]</sup>.

Thus the investigator felt that there is a need for intervention in postnatal mothers for episiotomy wound healing. As aloe vera pulp application is helpful for cuts and burn wound healing, the investigator is interested in experiment of application of aloe vera pulp for episiotomy wound healing.<sup>7</sup>

### Aim of the study

Assess the efficacy of aloe vera pulp application on episiotomy wound in postnatal mothers.

### Methodology

Researcher adopted quasi experimental descriptive research design. It was carried out on 60 postnatal mothers as a samples. The purposive sampling technique was used to data was collected using modified observational Checklist REEDA scale. Data analysis was done mainly using descriptive statistics.

### Results

#### Section I: Description of demographic profile

In regards to demographic profile age group 18-23 years, 37% (11) subjects from experimental and 57% (17) control group. Were from age group 24-29 years, 53% (16) subjects from experimental group and 40% (12) control group. Age group 30-35 years, 10% (3) subjects from experimental group and 3% (1) control group. And age group above 35 no subjects from experimental and control group. With regard to gravida Primi gravida 27% (8) in experimental group and 37% (11) control group. Second gravida 50% (15) in experimental group and 43% (13) control group. Third gravida 23% (7) in experimental group and 20% (6) control group. And from More than 3 gravida no subjects from experimental and control group. With regard to education no any subjects were Illiterate in experimental and control group. Were Primary educated 10% (3) in experimental and 7% (2) in control group. Secondary educated 17% (5) in experimental and 30% (9) control group. And Higher

secondary 735 (22) in experimental and 63% (19) in control group.

**Section II:** Evaluation of efficacy of aloe vera pulp application on From the above table data can be seen that the Pre-test scorings mean in Experimental and Control group is (3.900 and 3.366) and standard deviation in Experimental and Control group is (1.213 and 1.273) which is highly similar. The Post-test scorings mean in Experimental and Control group is (0.8667 and 2.966) and standard deviation in Experimental and Control group is (0.7761 and 1.159). This indicates that after routine care and aloe vera pulp application the score reduced in Experimental group. But it was not reduced in control group. It also reveals that calculated unpaired 't' value ( $t = 8.12$ ) is greater than tabulated value 2.02 with df of 58 at  $p < 0.05$  level.  $H_0$  is rejected. Therefore, there was a significant effect on episiotomy wound after aloe vera pulp application among postnatal mothers in the experimental group.

### Discussion

The findings of the study were discussed with the objectives and hypothesis stated to assess the efficacy of aloe vera pulp application on episiotomy wound in postnatal mothers.

In present study, demographic profile age group 18-23 years, 37% (11) subjects from experimental and 57% (17) control group. Were from age group 24-29 years, 53% (16) subjects from experimental group and 40% (12) control group. Age group 30-35 years, 10% (3) subjects from experimental group and 3% (1) control group. And age group above 35 no subjects from experimental and control group. With regard to gravida Primi gravida 27% (8) in experimental group and 37% (11) control group. Second gravida 50% (15) in experimental group and 43% (13) control group. Third gravida 23% (7) in experimental group and 20% (6) control group. And from More than 3 gravida no subjects from experimental and control group. With regard to education no any subjects were Illiterate in experimental and control group. Were Primary educated 10% (3) in experimental and 7% (2) in control group. Secondary educated 17% (5) in experimental and 30% (9) control group. And Higher secondary 735 (22) in experimental and 63% (19) in control group.

Pre-test scorings mean in Experimental and Control group is (3.900 and 3.366) and standard deviation in Experimental and Control group is (1.213 and 1.273) which is highly similar. The Post-test scorings mean in Experimental and Control group is (0.8667 and 2.966) and standard deviation in Experimental and Control group is (0.7761 and 1.159). This indicates that after routine care and aloe vera pulp application the score reduced in Experimental group. Result showed that P value less than 0.05 was considered statistically significant. No significant differences were seen between two groups in point of demographic characteristic and other intervening variables before the intervention.

### Conclusion

Majority of subjects in control group experienced improper episiotomy wound healing but many in experimental group experienced proper and fast wound healing. The unpaired t-test was used to find out the effectiveness of aloe vera pulp application in postnatal mothers to assess the episiotomy wound at 5% level significance. The result revealed that there was a highly significant reduction on REEDA scale

score in experimental group. Calculated value of unpaired t-test was higher than table value. Hence, the null hypothesis (H0) was rejected and alternative hypothesis (H1) was accepted. All the subjects from experimental group was observed and the application of aloe vera pulp was effective and improves wound healing. From the research it is very clear that intervention of aloe vera pulp application was effective and mainly improves the wound healing.

### Recommendations

Similar Study can be done in larger population and comparative in urban and rural.

### Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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