

Effect of aloe vera gel on nipple sores

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Abstract

Objective:

It is estimated that 80-90% of breastfeeding women experience nipple soreness. In this study we evaluated the effect of Aloe Vera gel compared with breast milk on nipple sores.

Methods:

This clinical trial study was performed in the neonatal ward of the Ghaem Hospital in Mashhad (Iran) from June 2009 to December 2009. Mothers were divided randomly into two groups: Aloe Vera application and breast milk application. After feeding their babies, the mothers used the preparation on their nipples 3 times a day and then let to dry without washing until the next feeding for 7 days. Breasts were examined before treatment, 3 and 7 days after treatment and graded using a scale and interview. Then data was analyzed with SPSS 11.5 software and Mann-Whitney, t student and paired t-tests.

Results:

A total of 100 patients were enrolled (50 in each group). In the Aloe Vera group sore nipple scores decreased significantly on days 3 and 7 versus pretreatment ($p=0.000$) compared to the breast milk group ($p=0.028$).

Conclusion:

Aloe vera was more effective than breast milk on nipple sores.

Keywords:

Aloe Vera gel, Breast milk, Nipple sore.

Introduction

It is estimated that 80 to 90 percent of breastfeeding women experience some amount of nipple soreness due to nipple trauma and infection. Up to 1/3 of them stop breastfeeding. (1-5) Moreover it is known that pain acts as an inhibitory factor on the release of oxytocin and milk ejection(6-8). Usually, breast milk itself prevents dryness and fissuring but is not universally effective in all women(9). Aloe Vera has been proposed as an enhancer of wound healing based on animal research. It is a cell proliferant, a stimulant to epithelialization and a chemical debrider(10). Aloe Vera also enhances skin wound repair and has anti-inflammatory,

antimicrobial and immunomodulating properties (11). It is also beneficial for treatment of acne, dermatitis, colitis, psoriasis, diabetic wounds, herpes and bedsores(12). Avizgan showed that mean treatment duration was longer in controls than in the Aloe Vera group on bed sore treatment(13). In this study we evaluated the effect of Aloe Vera gel on nipple sore treatment.

Methods

This clinical trial study was performed at Ghaem Hospital in Mashhad, (Iran) from June 2009 to December 2009. Mothers with sore nipples were divided randomly into two groups: Aloe vera group and breast milk group. Sample

size was determined with 95% confidence interval. The project was approved by our ethics committee and informed written consent was obtained. Mothers in the aloe vera group were instructed to rub aloe vera on their arms and if there was no allergy to rub it on the nipple after feeding the baby and let to dry 3 times a day for 7 days. The nipples were not washed; this procedure was also done in the breast milk group. Soreness at pretreatment, at 3 and 7 days later was assessed via a 5-point grading scale. All mothers were included if scoring was ≥ 2 . A questionnaire was filled and their age, BMI, parity, education level, dominant breast, infant birth weight, use of a milker or sedatives were documented. The data was analyzed with SPSS 11.5 and Mann-Whitney, t student and paired t-tests.

Results

We enrolled a total of 100 patients (50 in breast milk group and 50 in the aloe vera group). Mothers were 18-40 years of age. Mean nipple sore scoring in the aloe vera group was 3.04 at pretreatment, 1.26 on day 3 and 0.26 on day 7. Nipple sore scoring decreased significantly on day 3 and 7 from pretreatment ($p= 0.00$). Mean nipple sore scoring in breast milk group was 3.0 at pretreatment, 2.1 on the 3rd day and 1.8 on the 7th day and nipple sore scoring decreased significantly from pretreatment ($p= 0.028$). There was a significant difference between the groups with regard to decrease in soreness from pretreatment up to day 7 ($p= 0.001$).

Discussion

In our study use of Aloe Vera on nipple sores decreased pain significantly more than breast milk on days 3 and 7 ($p= 0.00$). Chitra did a study to determine the effect of aloe vera on wound healing in rats. Collagen in aloe vera group was shown to be significantly higher than controls(14). Also the aldehyde content in the aloe vera group was significantly higher as well. Avizgan performed a study to determine the effect of aloe vera gel on bed sore healing. Their results showed a significant difference between the 2 groups with regard to wound healing ($p= 0.000$) (13). Jarrahi performed a study to determine the effect of topical Aloe Vera on wound healing in rats and found that aloe vera

gel accelerated wound healing in the case group (15). We found a significant difference between our 2 groups with regard to decrease in soreness from pretreatment up to day 7 ($p= 0.001$) and use of aloe vera on nipple sores decreased pain significantly more than breast milk.

Conclusion

We found Aloe Vera to be more effective than breast milk on nipple sore pain.

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