WOUND HEALING

COMPARISON EFFICACY OF COMBINATION OF COPPER, ZINC AND SUCRALFATE WITH WHITE SOFT PARAFFIN IN TREATMENT OF CRACKED NIPPLE: A DOUBLE-BLINDED RANDOMIZED CLINICAL TIAL

R Talaee [1] - H Rahimi [2]

Autoimmune Diseases Research Center, Kashan University Of Medical Sciences, Dermatology, Kashan, Iran (islamic Republic Of) [1] - Kashan University Of Medical Sciences, Clinical Research Development Unit-matini/kargarnejadhospital, Kashan, Iran (islamic Republic Of) [2]

Introduction: Nipple fissure is one of major causes of breastfeeding discontinuation; that deprives infant from essential nutrients and mother from certain health benefits. With nipple fissures' impacts on breastfeeding, and existence of evidence in favor of application a combination of Copper, Zinc and Sucralfate on ulcer, we decided to apply this compound on cracked nipple. Sucralfate protects damaged skin and isolates lesion from external environmental aggressors. Copper-Zinc Compound promotes healthy skin environment for optimal recovery. Also, it has antibacterial properties.

Objective: To determine the effect of Copper, Zinc and Sucralfate compound on improving nipple fissures in compare with white soft paraffin.

Materials and Methods: It was a double-blinded randomized clinical trials on breastfeeding women with nipple fissures, graded one to four (Mehrbacher grading). Participants randomly allocated to intervention and control groups. Similarity of groups was checked respect to mother's ages, infant's ages, frequency and length of breastfeeding and duration of wound. Fissure grading was considered as the outcome. It was examined three times on Days: 0, 7, and 14 by a dermatologist. To compare treatment efficacy, the ordinal regression model with Generalized Estimating Equations was applied. This study has been approved by Ethics committee of Kashan University of Medical Sciences (reference number: 8852).

Results: The intervention and control groups were 68 (59.1%) and 47 (40.1%) cases, respectively. Duration of right and left nipple wounds were 35.2 and 34 days at the beginning of study. Except for mother's ages and breastfeeding's length, there weren't significant differences between two groups. At the end of study, the odds ratio of reducing

nipple grades in intervention group to control group, in right nipple was 3.3 (CI: 1.3-8.3). In left nipple, it was 5.3 (CI: 2.0-14.1), P<0.05.

Conclusion: It seems Copper; Zinc and Sucralfate compound has more efficacy than paraffin in healing of nipple fissures.