

## Effects of argan spinosa oil in the treatment of diaper dermatitis in infants and toddlers: A quasi-experimental study

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**Abstract:** Abstract Objectives: Diaper dermatitis (DD) is one of the most common dermatological disorders in children. Commonly used drugs for treatment have several adverse effects ; therefore, assessment of safe therapeutic strategies is necessary. We, therefore, aimed at comparing the efficacy of argan spinosa oil and 1% hydrocortisone ointment on DD healing. Methods: A quasi-experimental study was conducted in Jordan on children 2 years old or younger with mild to severe DD. Initially, 73 participants were enrolled in the argan spinosa oil group, and 74 participants were enrolled in the 1% hydrocortisone ointment group. Participants were assigned to groups randomly after the baseline measurement of DD. Healing was measured on a 5-point scale on days 1, 3, and 7, through home visits. Data were analyzed with Fisher?s exact test, the Mann eWhitney U test, and generalized estimating equation (GEE) models in SPSS version 25 software, with a significance level of  $p < 0.05$ . Results: Of the 147 enrolled children, 140 completed the study. A significant decrease in the DD grades was observed in both groups. After the exclusion of confounding factors, the GEE models revealed that children treated with argan spinosa oil were approximately 0.25 times less likely to have severe DD grades and to show faster improvement than children treated with 1% hydrocortisone ( $p < 0.025$ ). Multiple logistic regression on the baseline data revealed that the use of barrier cream (OR: 0.35; 95% CI: 0.18, 0.72;  $p ? 0.004$ ) and a frequency of bathing one or fewer times per week (OR: 1.15; 95% CI: 0.65, 2.10;  $p ? 0.002$ ) predicted DD occurrence. Conclusion: Argan spinosa oil is more effective than 1% hydrocortisone in healing DD and might be used as a complementary treatment. However, further clinical trials on larger samples will be essential for confirming the results and making a reliable judgment.