

Paediatrics

Emollients do not prevent eczema in infancy

Daily emollient use for the first 12 months of life did not protect against the development of eczema in high-risk children, a UK study has found.

Infants born at full term were recruited to a randomised controlled trial carried out at 12 hospitals and four primary care sites across the UK between 2014 and 2016. All the infants were deemed at high risk of developing eczema because of a family history of atopic disease i.e. at least one first-degree relative with parent reported eczema, allergic rhinitis, or asthma diagnosed by a doctor.

A total of 1,394 infants, 54% boys, were randomly assigned to receive either emollient (693) and best practice skin care advice or skin care advice only (701). Parents in the emollient group were offered the choice of two common emollients and advised to apply the emollient at least once daily to the whole body (apart from the scalp) until the child reached one year of age. They were also advised to apply emollient after every bath, even if they had already applied it earlier that day. Both groups received guidance on using mild cleansers and shampoos formulated for infants, and to avoid the use of soap, bubble bath and baby wipes.

The children were followed up at 2 weeks, by telephone, and at 3, 6, 12 and 18 months online or by postal questionnaire. At the two-year follow-up visit the skin was examined, saliva collected and skin prick testing performed. If testing or history indicated a possible food allergy diagnostic food challenges were carried out.

The primary outcome was eczema at the age of two, one year after

emollient treatment had stopped, to determine if there had been a lasting effect from the intervention.

Adherence in the emollient group was 88% (466 of 532) at 3 months, 82% (427 of 519) at 6 months, and 74% (375 of 506) at 12 months in those with complete data available.

Washing and bathing practices were similar in both groups. In the intervention group the emollient was usually applied once a day after the bath. At age two years, there was no significant difference in the prevalence of eczema, between the two groups. Eczema was found in 139 (23%) of 598 infants with outcome data collected in the emollient group and 150 (25%) of 612 infants in the control group; adjusted relative risk (RR) 0.95 (95% CI: 0.78-1.16, P = 0.61).

There were higher numbers of skin infections per child in the emollient group in year 1, 0.23 compared with 0.15 in the control group; adjusted incidence rate ratio 1.55 (95% CI: 1.15-2.09).

Food allergies to milk, egg or peanut were confirmed in 41 (7%) of 547 infants in the emollient group and 29 (5%) of 568 in the control group; adjusted RR 1.47 (95% CI: 0.93-2.33). The proportion of infants with allergic rhinitis, wheezing, and sensitisation to cat dander, grass pollen, and dust mite were similar in both groups.

The investigators conclude: 'Our study does not support the use of emollients for preventing eczema in high-risk infants, a finding supported by PreventADALL, another large trial using a skin barrier enhancing intervention.¹

'Our data relate only to prevention of eczema and do not directly challenge the practice of using emollients as first-line treatment for eczema.'

This study found no evidence to support the early use of emollients to prevent eczema and other atopic disease including food allergy. The data also suggest that their use may result in increased skin infections. There are practical issues too as using emollients can be burdensome to parents and waste NHS resources.

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Diabetes

SGLT2 inhibitors reduce risk of serious renal events

A Scandinavian observational study has shown that sodium-glucose co-transporter 2 (SGLT2) inhibitors are associated with a significant reduction in serious renal events compared with dipeptidyl peptidase-4 (DPP-4) inhibitors.

The study used Scandinavian disease registry data to compare population outcomes in the general diabetic population rather than selected groups of high-risk patients.

Data on a cohort of patients were drawn from disease registers in Sweden, Denmark and Norway. Potentially eligible patients were included from the Swedish and Norwegian registers between April 2013 and December 2016 and from Danish registers up to December 2018. These registers provide data on diagnoses, prescribing, investigations and cause of death.

Patients aged 35-84 years who had filled their first prescription for an SGLT2 inhibitor or a DPP-4 inhibitor were eligible for the study. Initially the registers yielded 38,273 new users of SGLT2 inhibitors and 107,854 of DPP-4 inhibitors.

Patients with prior exposure to the other drug, pre-existing serious renal disease, drug misuse, severe pancreatic disease or hospital admission in the past 30 days were excluded.

The remaining patients were carefully matched one to one as closely as possible, using multiple parameters, resulting in 29,887 pairs of matched patients who were eligible for admission to the study.

The mean age of participants was 61 years, and 39% were women. Around 19% had a history of major