

IN THIS ISSUE... (see article on pp 323)

Is Oil a Balsam for Baby Skin?

The very well-conducted pilot study by Alison Cooke et al. (1) evaluates, in biophysical terms, the effect on full-term neonatal skin of 4 weeks' treatment with topical oils, and indirectly addresses the question as to whether the application of topical oils may contribute to the development of childhood eczema. Both olive oil and sunflower oil contain significant amounts of unsaturated medium-chain fatty acids, which could potentially perturb the proper development of the skin's barrier function in early childhood by disturbing the molecular organization of the lipid structure of the stratum corneum extracellular space. The study shows that the use of topical oils may increase hydration of baby skin, but, at the same time, 4 weeks' treatment with olive oil (which has a high oleic acid content) causes significantly delayed improvement in lipid chain ordering (i.e. how tightly packed and well organised the lipids are in the barrier structure) after tape-stripping. However, such delayed improvement in lipid ordering was not observed after application of sunflower oil (which has a high linoleic acid content), and observed for olive oil at

only 2 out of 3 measured locations (arm, abdomen and thigh). Furthermore, a statistically significant difference with respect to improvement in lipid ordering was not observed between olive oil and sunflower oil. The outcome is thus inconclusive, but hints at the possibility of a barrier perturbation in neonatal skin measurable by attenuated total reflectance-Fourier transform infrared (ATR-FTIR) spectroscopy. As such, this supports the call for a long-term observational study to investigate whether the application of topical oils from birth may contribute to the development of atopic eczema.

REFERENCE

1. Cooke A, Cork MJ, Victor S, Campbell M, Danby S, Chittock J, Lavender T. Olive Oil, Sunflower Oil or no Oil for Baby Dry Skin or Massage: A Pilot, Assessor-blinded, Randomized Controlled Trial (the Oil in Baby SkincaRE [OB-SeRvE] Study). *Acta Derm Venereol* 2016; 96: 323–330.

Lars Norlén

Dermatology Clinic, Departments of Medicine and Cell and Molecular Biology, Karolinska Institutet, SE-171 77 Stockholm, Sweden. E-mail: Lars.Norlen@ki.se