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A randomised controlled trial of topical Kanuka honey for the treatment of psoriasis

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Objectives

There are anecdotal reports of topical honey being effective in the treatment of psoriasis but no clinical trials as a single agent. One study reported use of a honey, beeswax and olive oil mixture alone and in combination with topical steroids, and suggested that this mixture may be effective for the treatment of atopic dermatitis and psoriasis.[1] We report a pilot study of the acceptability and feasibility of topical medical grade Kanuka honey for the treatment of psoriasis.

Design

An open-label single blind randomised controlled trial was conducted. Participants applied medical-grade Kanuka honey (Honeylab, NZ) to a representative lesion on one side and aqueous cream BP to the other, nightly for two weeks. Lesions were covered with a dry non-adherent dressing overnight. Choice of side was randomised by coin toss.

Setting

Two primary care practices in Tauranga, New Zealand.

Participants

There were 15 adult participants with a doctor's diagnosis of psoriasis involving the limbs, with bilateral lesions to allow comparison between treatments. Participants receiving any corticosteroid, or who were allergic to honey, were excluded.

Main outcome measures

Primary outcome measure was the intensity component of the validated Psoriasis Area and Severity Index,[2] assessed by a second investigator blinded to treatment allocation. Unblinded secondary outcome measures were participant-rated lesion severity and acceptability of honey therapy, both measured by Visual Analogue Score (VAS). The study was approved by the Multi-Region Ethics Committee of New Zealand (NZ) and written informed consent was obtained from all participants. Analysis was by paired signed rank test for intensity, and paired *t*-tests were used for the comparison of severity.

Results

All subjects were included in the analysis, mean (SD) age 52.1 (13.6), and the results are shown in Table 1. Blinded investigator-rated lesion intensity decreased with both treatments, with no significant difference between honey and cream after two weeks. The severity VAS scores decreased after two weeks with no difference between treatments. Self-reported adherence was good with 95% of applications completed, and a mean duration of application of over 9 h for both honey and aqueous cream. Participants rated honey acceptability highly, mean VAS score 71.1 (27.6). Narrative feedback suggested that Kanuka honey can be applied and removed easily, and that overnight application is practicable. There were no treatment-related adverse events.

Conclusions

In this pilot single blind randomised controlled trial of topical medical grade Kanuka honey for the treatment of psoriasis, Kanuka honey treatment was found to be both feasible and acceptable. Efficacy was similar to that of the aqueous cream control. Aqueous cream is recommended as a treatment in psoriasis[3,4] and therefore may be seen as an active comparator; however, the efficacy of aqueous cream

Table 1. Comparison of two weeks' treatment with honey vs. aqueous cream in psoriasis.

	Honey	Aqueous cream	Honey minus cream	*p*
Acceptability				
Score (0–100)	71.1 (27.6)	–	–	–
Clinical outcomes				
Intensity (0–12)				
V1	4.2 (1.5)	4.0 (1.4)		
V2	2.9 (1.4)	3.2 (1.5)	−0.3 (1.2)	0.61*
Change with treatment	−1.3 (1.0)	−0.8 (1.5)	−0.5 (1.5)	0.25*
Severity (0–100)				
V1	49.3 (25.9)	49.1 (23.6)		
V2	32.1 (27.6)	36.9 (28.2)	−4.8 (−13 to 3.7)†	0.25‡
Change with treatment	−17.2 (16.8)	−12.2 (10.8)	−5.0 (−14.3 to 4.4)†	0.27‡
Adherence				
Duration of use (min)	565.8 (76.7)	563.0 (76.1)	–	–

Values reported as mean (SD) unless otherwise stated. For Psoriasis Area and Severity Index intensity scores, higher scores represent more severe disease. Acceptability scores range from 0 'completely unacceptable' to 100 'completely acceptable'. Severity scores range from 0 'mildest possible' to 100 'Worst possible'. V1: Baseline visit 1; V2: Visit 2 after two weeks' treatment.
*Signed rank tests.
†Mean (95% confidence interval).
‡Paired *t*-test.

is significantly less than that of agents such as topical steroids. An important limitation of this study is the small sample size and partial blinding. Complete blinding is not possible due to the physical characteristics of honey. We conclude that topical application of medical grade Kanuka honey is feasible and acceptable to patients. Kanuka honey may have similar efficacy to aqueous cream in the management of psoriasis, but this requires confirmation in a suitably powered study.

Declarations

Competing interests: Dr Shaun Holt, the Medical Director of Honeylab, was previously the Programme Director of Complementary Medicine at the Medical Research Institute of New Zealand.

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Guarantor: JF

Ethical approval: The study was approved by the Multi-Region Ethics Committee of New Zealand (NZ), MEC/12/03/022, and written informed consent was obtained from all participants.

Contributorship: JF, MW and RB designed the study with input from DS and AC. JF, DS and AC conducted the study with analysis performed by MW, JF and RB. JF wrote the first draft and all authors revised and approved the final manuscript.

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