COMPARATIVE PILOT STUDY ON TWO DIFFERENT MIXES OF UNSATURATED FATTY ACIDS USED LOCALLY ON THE TREATMENT OF STABLE CHRONIC PSORIASIS.

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Patients' psoriasis had not been treated for 4 weeks before the beginning of the research and any other similar treatments were not permitted during research.
The clinical results on the patients are shown in the table. At the beginning of the research and within 6 weeks the scaling, hyperkaretinization, erythema of the lesions were evaluated using a 4- point scale: 0 – absent, 1 – mild, 2 – moderate and 3 – severe. Average points have been counted on each parameter before and after research.

INTRODUCTION:

Earlier research has shown that the poly-unsaturated fatty acids taken orally have had a very beneficial effect on psoriasis.
The purpose of this study was to evaluate the effects of poly-unsaturated fatty acids in the local treatment of chronic psoriasis.

SUBSTANCES AND METHODS:

The target group of the study contained 20 patients, who had chronic stable plaque – type psoriasis. Randomly chosen 10 patients got treatment substance 1 (pine oil fatty acids and linol fatty acids). The other 10 patients received treatment substance 2 (the same mixture with aluminium stearate added to its formula).
Treatment substances were applied onto target lesions twice a day during a 6-week period.
Before the treatment was applied patients verbally gave their consent to take part in this study.

RESULTS:

The treatment substance 1 was more effective than treatment substance 2. In the group applying treatment substance 1 the observed bar was completely put into remission on 7 patients and considerably improved on other 2 patients. In the case of one patient the bar had worsened, likely because of the irritation caused by the oil.
In the treatment substance 2, the corresponding numbers were 6, 3 and 1.
Clinical changes are shown on the Table.
Two other patients had irritation to the treatment substance.
Other side – effects or unexpected harmful effects were not noticed during the research.

COMMENTARIES:

A mixture of pine oil and linol fatty acids as such or compounded with organic aluminium stearate turned to be very effective in the treatment of chronic stable psoriasis. Aluminium Stearate forms a membrane to the horny layer, that improves the persistency of the fatty acids on the skin. In the pilot study, this, however, didn't seem to improve the treatment results.
In the future, wider placebo controlled studies will be necessary before the final effect of the treatment substance used in the study can be evaluated.

In short, we can say that the study has shown that the locally used poly-unsaturated fatty acids are a promising new treatment for psoriasis and related skin conditions.

SUMMARY:

Altogether 20 patients, who had chronic stable psoriasis were treated with two oil mixtures during a 5-week period. 10 patients were treated with a mixture of pine oil fatty acids and linoil fatty acids (treatment substance 1). 10 patients were given the equivalent mixture added with organic aluminium compound (treatment substance 2). One wide psoriasis bar was treated twice a day during 5 weeks.
Before the beginning of treatment the different 'treatment groups' were completely comparable. In the group of 'treatment substance 1' the treated psoriasis lesion was completely put into remission in 7 patients and considerably improved on 2 patients. On one patient the lesion got worse due to irritation caused by an allergic reaction to the substance.
The corresponding numbers in the group of treatment substance 2 were: 6, 3, and 1.

This study shows that fatty acids offer a promising new treatment for the local treatment of psoriasis.

TABLE:

PATIENT DATA AND TREATMENT RESULTS

	Treatment substance 1	Treatment substance 2
Number of patients	10	10
Man/Women	9/1	5/5
Average age	55.0	49.6
Average durability of psoriasis	16.7	14.6
Location of observed plaque:		
Elbow/ knee	8	10
Buttocks	2	0
Treatment response:		
Completely put into remission	7	6
Considerably put into remission	2	3
Bad treatment response	1	1

Average change of individual psoriasis during the treatment:

Scaling	2.5 – 0.4	2.7 – 0.9
Erythema	2.5 – 0.4	2.7 – 1.0
Hyperkeratinization	2.4 – 1.0	2.4 – 1.0
Itching	1.2 – 0.3	1.2 – 0.3

Literature References:

1. Maurice PDL ,Allen BR, Barkley ASJ, et al: The effects of dietary fish oil in patients with psoriasis. Br J Dermatol, 1987;117:559 – 606
2. Bittner SB ,Cartwreight I, Tucker WGF, et al : A double blinded randomized, placebo controlled trial of fish oil and psoriasis; Lancet 1988;I : 378 – 380
3. Lassus A, Dahlgren AL ,Halpern MJ ,et al: Effects of dietary supplementation with polyunsaturated ethyl ester lipids in patients with psoriasis and arthritis. J Int Med Res 1990;18:69 – 73.