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## A successful topical treatment for cutaneous inflammatory diseases: an additional or alternative therapy to topical steroids

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### To the Editor

Topical steroids are commonly used in several cutaneous pathologies, such as psoriasis, atopic dermatitis, irritative and allergic contact dermatitis, particularly in acute phase and often for long periods. However, topical corticosteroids can be associated with adverse effects, such as acneiform lesions, erythema, teleangiectasias, hypertrichosis, perioral dermatitis, photosensitivity and burning sensation (1).

The goal of our study was to find an alternative non-steroidal anti-inflammatory treatment for the management of cutaneous diseases. We selected 50 patients to test our non-steroidal inflammatory topical product. The patients were affected by mild or moderate psoriasis, atopic dermatitis and irritative contact dermatitis.

The patients were not performing neither systemic nor topical treatment at the moment of our observation. The age of our patients (both male and female) was between 20 and 65.

Exclusion criterion was a proven allergy to one of the three components of the cream: hemp seed oil, macadamia oil, rosa mosqueta oil.

The patients applied 1 ml of the cream, twice a day, on the inflamed lesions. Patients came to control visit after 1, 3, 7 and 12 weeks. The evaluation of the treatment efficacy has been estimated with a three-levels score: complete healing, partial healing (using %) with description, absence of visible effect. The emollient and hydrating cream of the study was composed by water, cetearyl alcohol, cannabis sativa seed oil, rosa moschata seed oil, macadamia ternifolia seed oil, panthenol, propylene glycol, hydrolyzed glycosaminoglycans, proline, magnesium aspartate, citric acid, disodium EDTA, cetrimonium chloride, 2-bromo-2-nitropropane-1,3 diol, phenoxyethanol.

After 12 weeks, we observed a complete healing with *restitutio ad integrum* in 30 patients (**figure 1** and **2**). Among this group, one patient was affected by radiodermatitis and another one by ex-

**Figure 1** - Bilateral, erythematous and squamous lesions of the palms.



**Figure 2** - Cutaneous aspect after 12-week topical therapy. The image shows the same two hands as in Figure 1, but now they appear clear, smooth, and free of any lesions, indicating complete healing.



tramammary vulvar Paget. Both showed complete healing using our cream. In the other 20 patients, we revealed a partial healing. According to the guidelines, steroid creams should be used for limited periods to avoid the onset of side effects (1).

The cream of our study was composed by three different oils: cannabis sativa seed oil, rosa moschata seed oil and macadamia ternifolia seed oil. These oils are composed by omega-6 and -3 fatty acids, respectively linoleic acid and  $\alpha$ -linolenic acid. Furthermore, it contained tocopherol, carotenoids and vitamin A, which have natural antioxidant action.

Cutaneous diseases, such as psoriasis and atopic dermatitis, are characterized by an alteration of the skin barrier, which is normally constituted by ceramides, free fatty acids and cholesterol. For this reason, the use of our product, containing essential fatty acids, has been helpful for the reconstitution of the cutaneous barrier.

Moreover, the components of our cream had also an anti-inflammatory effect. Indeed, essential omega-3 fatty acid has anti-inflammatory and immune-modulating actions and can be helpful in various conditions: atherosclerosis, blood pressure alterations, platelet function alterations, rheumatoid arthritis and cutaneous diseases (2).

These fatty acids are capable of partly inhibiting many aspects of inflammation, including leucocyte chemotaxis, adhesion molecule expression, and leucocyte-endothelial adhesive interactions and production of pro-inflammatory cytokines (3).

In conclusion, our cream showed anti-inflammatory actions and could reintegrate the cutaneous barrier. For this reason, it could be a valid substitute to topical steroids in case of *mild or moderate* cutaneous lesions. It could be also useful as a co-adjutant approach in case of patients who are performing a topical or systemic steroid treatment. Lastly, this cream could represent an additional therapy in case of cutaneous lesions, such as radiodermititis or Paget's (4).

#### Conflict of interest

The authors declare that they have no conflict of interest

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