



ATOPIC ECZEMA/DERMATITIS

## THERAPEUTIC PERFORMANCES OF NATURAL MOLECULES FROM OPHIOPOGON JAPONICUS IN CHILDREN AND ADULTS WITH ATOPIC DERMATITIS

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**Introduction:** Topical treatments to fight against atopic dermatitis (AD) include corticosteroids and calcineurin inhibitors, although they are often associated with adverse events such as skin atrophy, itching and burning sensations. Good alternatives able to prolong disease relief in between flare-ups are therefore needed. To overcome this issue, we focused on one natural ingredient from the traditional Chinese medicine, namely *Ophiopogon japonicus*, that was processed to extract specific active molecules: oligofructans (OFs). Interestingly, we already demonstrated the efficacy of these molecules on 3D in vitro models mimicking AD features but never on patients.

**Objective:** Hence, the goal of this study was to assess the clinical efficacy of OFs in decreasing the frequency and intensity of AD flare-ups in AD patients.

**Materials and Methods:** For this purpose, we conducted a randomized, single-blind, placebo-controlled, multicenter clinical trial in a cohort of 90 children and 144 adults with mild-to-moderate AD, that applied tested products twice daily for 60 days.

**Results:** The OFs from *Ophiopogon japonicus* were successful in reducing the SCORAD, including erythema, pruritus and body surface area in both cohorts:  $3.9 \pm 1.3$  for children ( $P = 0.015$ ) and  $6.6 \pm 1.1$  for adults ( $P < 0.0001$ ), compared to baseline (children:  $5.7 \pm 5.1$ ; adults:  $13.7 \pm 0.8$ ). Regarding QoL indexes, OFs improved children's and parents's IDQOL and DFI, as well as adults DLQI, at both D30 and D60. Finally, OFs reduced the intensity and the frequency of AD flare-ups in children compared to placebo, as depicted by the favorable IGA (Investigator Global Assessment;  $P < 0.05$ ), whereas no difference could be detected between both treatments in adult.

**Conclusion:** Altogether, these results prove the beneficial effects of OFs in the course of AD. Therefore, these natural molecules could be used in skin care products, as a complementary relay for corticosteroid treatment.

