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**Dupilumab treatment for up to 3 years demonstrates sustained efficacy in adult patients with moderate to severe atopic dermatitis: Results from LIBERTY AD Adult OLE**



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Background: Dupilumab is approved in the US for treatment of patients aged  $\geq 12$  years with moderate to severe atopic dermatitis (AD). Here, we primarily report efficacy data of dupilumab in an ongoing open-label extension (OLE) study in adult AD patients (NCT01949311), collected for up to 3 years at data cutoff (December 1, 2018).

Methods: The OLE study assessed long-term safety and efficacy of dupilumab 300 mg weekly in adults with moderate to severe AD who had previously participated in dupilumab clinical trials (parent studies).

Results: A total of 2678 patients were enrolled. At week 148 (n = 58), 74.1% of patients had an Investigator's Global Assessment (IGA) score of  $\leq 1$  (clear or almost clear skin) and 94.8% had IGA score  $\leq 2$ . Mean percent change in Eczema Area and Severity Index (EASI) from baseline of parent study to wk 148 (n = 58) was -95.44%, with 96.6% of patients achieving  $\geq 75\%$  reduction in EASI at wk 148. Mean percent change in Peak Pruritus Numerical Rating Scale (NRS) from baseline of parent study to wk 148 (n = 218) was -65.43%, while 75.0% of patients had achieved  $\geq 3$ -point improvement in Peak Pruritus NRS at wk 148. At wk 148, mean EASI (standard deviation [SD]) was 1.4 [3.2] and mean Peak Pruritus NRS [SD] was 2.2 [1.8], corresponding to no/very mild skin lesions and pruritus. The safety profile in this 3-year treatment study was consistent with previously reported safety data for dupilumab.

Conclusions: Long-term treatment with dupilumab showed sustained improvement in AD signs and symptoms in the cohort of patients who completed up to 3 years of treatment.

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**Evaluation of concerns about peroral medications for dermatologic disease among Koreans**



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Compliance has an important influence on treatment outcome. Concerns about peroral medications prescribed for dermatologic disease are prevalent in Korea, which result in non-compliance and, consequently, poor treatment response. The aim of this study was to assess the level of concern among the general population of Korea about peroral medications for dermatologic disease (PMD). We used a structured questionnaire consisting of three categories: general knowledge of PMD, previous experience of using PMD, and comparison of PMD use with previous experience of using peroral medications for nondermatologic diseases (PMND). A total of 100 subjects were enrolled; 54 expressed concerns about using PMD, and these subjects were predominantly female ( $P = .007$ ). Among them, nearly half (46%) did not identify a specific drug class of concern, while corticosteroids were the most commonly identified drug class of concern (64.5%) among those who cited a particular class. The side effects of PMD that were of most concern were hepatic/renal toxicity and tachyphylaxis (31.7%). Friends/acquaintances (26.2%) were the most common sources. Approximately one third of subjects (n = 35) were more concerned about PMD than PMND; only 3 showed the opposite pattern. Based on the results of the present study, concerns about PMD seem to be prevalent in Korea. Providing patients with accurate information derived from trustworthy sources may help reduce unfounded concerns about PMD.

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**Dimethyl fumarate as long-term treatment for moderate to severe plaque psoriasis in clinical practice: Interim data from the SKILL study**



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Background: Dimethyl fumarate (DMF) is approved in Europe for the treatment of moderate to severe psoriasis in adults. SKILL was designed to assess the clinical effectiveness and safety of long-term DMF treatment.

Methods: A 24-month multicenter noninterventional prospective study is being conducted in Germany. 1000 adults with moderate to severe plaque psoriasis will be enrolled and treated with DMF according to the label. Physicians evaluate DMF's effect on skin condition and tolerability. Patients complete questionnaires on treatment satisfaction and change in pain and itch.

Results: 673 patients have been enrolled (59.7% male; mean [SD] age 47.6 [15.4] years; mean PASI 14.6 [9.6]; moderate to severe scalp PGA 42.9%). Week 24 data are available for 343 patients. 'As observed' and 'LOCF' outcomes at week 24, expressed as absolute responses, were: PASI  $< 3$ , 52.8% and 44.4%; PASI  $< 5$ , 70.1% and 60.1%; and PGA 0-1, 48.8% and 40.4%. Week 24 'as observed' and 'LOCF' PASI 75, 50.8% and 43.3%; PASI 90, 22.8% and 17.7%. 'As observed' itch NRS  $< 3$ , 69.1% (week 24) vs 24.4% (baseline); patients without pain, 61.9% (week 24) vs 33.0% (baseline). Treatment satisfaction with efficacy was 'good' or 'very good' for 91.2% (physician's assessment) and 86.1% (patient's assessment). 33.4% of patients experienced an AE (most frequent: diarrhea 11.1%) and 1.8% reported an SAE.

Conclusions: DMF has favorable efficacy and safety after 24 weeks' treatment in routine clinical practice. Compared with safety data from the BRIDGE trial and the interim report from the German PsoBest registry, no new or unexpected AEs were observed.

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**Protective effects of an active complex against unbalanced biomarkers induced by infrared-A radiation, blue light, and heavy metals: An integral approach of skin aging**



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Premature skin aging is mainly attributed to solar radiation and air pollution. Harmful effects promoted by these extrinsic factors include: oxidative stress and antioxidant depletion, disturbance of skin barrier and extracellular matrix, loss of elasticity and firmness, hyperpigmentation, among others. In this study, we evaluate the preclinical efficacy of an active complex (AC), composed by *Lespedeza capitata* flower/leaf/stem extract, *Polygonum aviculare* extract, and acrylic acid/acrylamidomethyl propane sulfonic acid copolymer, against damages caused by infrared-A (IRA) and visible light (VL) radiations, as well as, exposure to heavy metals (HM), using human cell cultures. Fibroblasts and keratinocytes were incubated with 3 noncytotoxic concentrations of AC and subjected to IRA, IV or HM exposition, for later quantification of biomarkers involved in cutaneous photoaging. In relation to IRA protection, AC demonstrated a prophylactic effect against the exacerbated increase in matrix metalloproteinase-1 synthesis, resulting in the preservation of collagen, which is a fundamental structure for tissue support. Regarding protection against VL, particularly in the blue light spectrum, AC has the ability to prevent opsin-3 decay, thereby inhibiting marked activation of the melanocortin receptor and preventing the increase of melanogenesis. Protection against air pollution was performed on cell cultures incubated with a heavy metal pool. The results showed that AC prevents the cellular internalization of metals indicating a possible chelating action. Taken together, these results reveal a potential use of AC as a booster in skin care formulations aiming to prevent against the effects of daily stress that skin is exposed.

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