Development of a novel polyherbal topical formulation for the management of eczema
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Eczema is an inflammatory, chronically relapsing, non-contagious and a pruritic disease with itchy, red, swollen and cracked skin. Current management strategies include oral medications, steroid creams and light therapy. We have developed a novel aqueous mixture (SIRB-001) consisting of 3 Traditional Chinese Medicine (TCM) based herbs; Rheum palmatum L. (Da Huang), Rehmannia glutinosa Libosch (Sheng di huang) and Lonicera Japonica (Jin yin hua) in the ratio 1:1:3. SIRB-001 has previously demonstrated promising anti-psoriatic activity in pre-clinical and clinical studies. SIRB-001 was further tested for efficacy in eczema using pre-clinical models, followed by clinical trial. SIRB-001 has demonstrated significant inhibitory effects on secretion of TNF-α, TARC and VEGF in keratinocytes (HaCaT). Considerable down-regulation of IL-6 in RAW264.7 cells and IgE in human myeloma cell line-U-266 was observed. SIRB-001 also exhibited inhibition of JAK-1/JAK-3. SIRB-001 based cream was developed and was found to be highly safe in animal studies. Encouraging preclinical results paved the path for clinical investigation in 30 subjects with eczematous lesions. The efficacy, safety and tolerance of SIRB-001 cream was evaluated in a mono-centric, open label study with treatment regimen of twice daily application for 4 weeks. At weekly intervals, Eczema Severity Index (ESI) and Investigator’s Global Assessment Severity (IGAS) was determined in subjects. SIRB-001 cream demonstrated significant (p<0.001) decrease in ESI, IGAS (d28-d0) and was well tolerated in human patients with a good safety profile. Hence, it can be concluded that SIRB-001 is a highly effective new treatment with a favorable safety profile for management of eczema.

Biography
Anu T Singh has completed her PhD in Tumor Biology from All India Institute of Medical Science, Delhi and Postdoctoral research from National Institute of Immunology, Delhi. She is the Vice President of Dabur Research Foundation (DRF). She has published and presented more than 40 research papers in peer-reviewed journals & scientific meetings.

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