Poster Presentations

615 LASER Doppler Flowmetry Comparison of Pharmacodynamic Effects of Cetirizine and Loratadine on Histamine Induced Skin Response. Van Hansel (1), de Brouwer (1), Valentin (2), Pearson (2), Florence, France. 

In previous studies, reproducibility on the skin response to histamine administered by intradermal prick (H1) was established using laser Doppler Flowmetry (LD). The purpose of the present study was to compare the histamine induced skin response and the skin blood flow between Cetirizine (C) and Loratadine (L). 

In our study, 30 patients were enrolled in a double-blind, randomized study consisting of two tests, according to the following schema: Test 1: Histamine prick test (500 mg/ml) Test 2: Histamine prick test + Cetirizine 10 mg or Loratadine 10 mg. 

The laser Doppler signal was analyzed using a high-speed analyzer. The increase in the blood flow observed in the Cetirizine group was significantly higher than in the Loratadine group. The histamine induced skin response was significantly lower in the Cetirizine group. 

Our results confirm that Cetirizine and Loratadine have different pharmacodynamic effects on histamine induced skin response. 

618 THE OCCLUSIVE EFFECTS OF PROTECTIVE GLOVES ON THE BARRIER PROPERTIES OF THE STRATUM CORNEUM. C.J. Graver, C. Edwards, R. Marks, Department of Dermatology, University of Wales College of Medicine, Heath Park, Cardiff, Cymru, UK.

The aim of this study was to characterize the effects of occlusion by gloves on the stratum corneum in terms of its physical and functional properties. 

A series of volunteer trials have been carried out, looking at the effect of occlusion by puches of PVC glove material on the stratum corneum. Percutaneous permeability was measured using time to onset of nicotine induced hyperaemia by infrared and Doppler blood flow. Impenetrant barrier function was assessed by measuring trans-epidermal water loss. Surface roughness was measured using confocal microscope. 

In conclusion, gloves significantly reduce the stratum corneum in terms of surface roughness and skin compliance, and a temporary increase in baseline hydration was measured. However, after baseline conductance measurements have returned to normal levels, we found that peak conductivity after water absorption is still significantly below the pre-treatment peak conductivity. This phenomenon is related to the ability of the stratum corneum to take up water. 

617 IN VITRO EVALUATION OF GENETIC PREPREDISPOSITION TO TOXIC EPIDERMAL NECROLYSIS. Pierre Wolkonsky, Dominique Chaut. Jean-Claude Roujeau, Jean Recuz, and Marine Bagot, Department of Dermatology, University Paris XII, Creteil, France. 

The pathogenesis of hypersensitivity reactions has been hypothesized to be dependent on genetic predisposition involving cell defense mechanisms. The aim of the present study was to identify genetic defects involved in severe cutaneous drug reactions. 

16 patients (including 11 with Lyell or Stevens-Johnson syndromes) were tested for their susceptibility to reactive metabolites generated from drugs in the microsome oxidation system. The culprit drugs were sulfonamides or anticonvulsants (respectively 13 and 13 patients). 

Toxicity of culprit drug reactive metabolites (CDRMs) toward patients lymphocytes (9.5% ± 2.2%) was significantly higher than toward controls (3.5% ± 2.2%) (p < 0.05). First relatives of 4 patients with Lyell (3 to sulfonamides, 1 to phenobarbital) were also tested. In each family a relative was more susceptible to CDRMs than controls. 

In order to precise the detoxication defect involved in sulfonamide and anticonvulsivant reactions, we challenged lymphocytes from 11 patients (7 with hypersensitivity to sulfonamides and 4 to anticonvulsants) to menadione, formaldehyde, and metilpent oxide (TCPO). Menadione, formaldehyde, and TCPO are detoxication pathways. After a 2 h incubation with one of these three chemicals, no difference of toxicity was found between patients and controls. 

In conclusion, severe cutaneous reactions, especially Lyell or Stevens-Johnson syndromes may be inherited and may be linked to a constitutional and inherited highly specific defect in the detoxication of CDRMs. 

620 IMPACT OF TERBINAFINE IN SOME EXTENSIVE DERMATOMYCOSSES. A.H. Askhabov, C.C. Comberg, Department of Dermatology, Sensahoma Moscow Medical School, Moscow, Russia. 

Dermatomycoses (onichomycoses, Tinea pedis, corporis, cruris) are among the most common infections in humans. We have studied the effect of terbinafine (Lamisil) in patients with some extensive dermatomycoses including those with acquired immunodeficiency. 

The antiproliferative effect of lamisil on human keratinocytes and melanoma cells was studied in vitro. Sulfonamides were administered orally in a dose of 250 mg x 2 tablets daily. The effect of lamisil on the keratinocytes was studied in vitro. 

The effects of the drug were evaluated by inverted microscope and survival cells were calculated using hemocytometer. Glycerin saponified tissues were measured with hemocytometer and bovine collagen. After treatment, concentrations of free radicals and water extract were added to each culture system. 

The in vitro application was found to be the main biological effect of the drug. The drug enhanced microcirculation. Terbinafin was highly effective in dermatomycoses even in immunodeficiency.