

KS the administration of adrenaline should be carefully evaluated as adrenaline, having vasoconstriction effects, can worsen the myocardial ischemia.

**Conclusions** It is our opinion that work suitability cannot be granted to beekeepers who developed KS with.

## 714 OCCUPATIONAL CONTACT DERMATITIS

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**Introduction** Dermatoses are a group of diseases that are common among occupational diseases. Occurrence is seen between 10%–40% and is the second most common occupational disease after muscular and skeletal system diseases. In this study, we aimed to evaluate the general characteristics of the occupational diseases evaluated by occupational dermatosis in our clinic about 3 years.

**Methods** A total of 23 patients who applied between 2014–2017 were evaluated retrospectively. A detailed business story was taken from the cases and clinical evaluation was done. Materials MSDS information was requested from the workplaces. Patch test was applied to the cases where contact dermatitis was suspected. Other dermatological diseases were excluded and evaluated as allergic and irritant contact dermatitis according to the patch test results. Statistical evaluations were performed using the PASW Statistics for Windows (SPSS Inc. Version 18.0, Released 2009, Chicago, USA) statistical package program.

**Results** When the demographic characteristics were examined, 21.74% of the cases were female and 78.26% were male. The initial area of the lesions was 52%. Six of the cases were diagnosed with other dermatological diseases, 12 with allergic contact dermatitis and 4 with irritant contact. The most common allergens were nickel sulphate (73.3%), potassium dichromate (40%) and tiuram (20%). Time interval between onset of lesions and the date they first appeared (latent periods) according to the sectors is given in the tables.

**Conclusion** Occupational dermatoses refer to our clinic, constitute 3.7% of occupational disease-related cases and 5th place among other occupational diseases. It was observed that the cases came from different sectors, mostly male and between 30–40 years old. Occupational history and patch test results are important for diagnosis. Since the latent period is variable, it is not very meaningful in predicting the occurrence of the disease when examined in terms of substance and sectoral distribution.

## 878 AIRBORNE POLLEN SAMPLING AT TWO DIFFERENT HEIGHTS: VARIATION OF CONCENTRATIONS IN INDOOR AND OUTDOOR ENVIRONMENTS AND IMPLICATION FOR OCCUPATIONAL HEALTH

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**Introduction** Allergic respiratory diseases, especially rhinitis and asthma, is of relevant importance within emerging occupational diseases in the last decades. It is therefore fundamental monitoring airborne pollen concentrations for allergic disease prevention. Many factors are able to influence airborne pollen concentrations: meteorological parameters (air temperature, relative humidity, wind speed), seasonal variations, geographical location, human habits and activity. In this context, for research purposes, we have carried out samplings at two different heights to investigate variations of concentrations of several types of airborne pollen in indoor and outdoor environments according to standard methods of the UNI 11108/2004 and following.

**Methods** Airborne pollen grains have been collected using a volumetric sampler, Lanzoni VPPS 2000 type Hirst based on impact collection of atmospheric biological particles. Sampling have been performed in one room office using two samplers located to different heights of the suction nozzle (at 1,10 m and 0,6 m) during 2016–2017 and in outdoor environment (urban area) using two same samplers situated to two different level (at ground level in Trajan Forum and at 45 m on ground level on Calandrelli Tower) during 2002–2003. Monitoring stripes were cut and stained with glycerine jelly with fuchsin and then observed with optical microscope to 40X.

**Results** We observed that pollen concentration are higher at low altitude in both indoor and outdoor samplers. Normally, the outdoor pollen concentration at low level is six or seven times higher than at high altitude, while the indoor pollen is about two time higher.

**Conclusion** The versatility of sampling at different heights is a very valuable tool to explain how many factors both environmental and personal influence space-time distribution and turbulence related to aerodynamics of these biological particles. The results suggest that pollen gradients at lower level is about five time greater than in indoor respect to outdoor sites.

## 338 OCCUPATIONAL IMMEDIATE ALLERGIES TO CHEMICALS

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**Introduction** Exposure to chemicals occurs in a wide range of professional fields. Chemicals typically induce delayed, cell-mediated sensitisation, but some chemical agents are able to induce immediate-type allergy. The mechanisms of immediate sensitisation to chemicals are still mainly unknown, but specific IgE seems to play a role, at least for some chemical groups. The aim of our study was to evaluate the diagnostic procedures of occupational immediate allergic diseases caused by chemicals and assess the feasibility of skin testing in the diagnostics.

**Methods** We retrospectively reviewed the patient files of the Finnish Institute of Occupational Health for the period of 1991–2011 to find patients diagnosed with immediate sensitisation to chemicals. We collected data on occupation, exposure, work-related symptoms, clinical and immunological test results, and occupational allergic diseases.

**Results** Positive skin prick tests (SPT) were noted for organic acid anhydrides, diisocyanates, persulfates, epoxy resin, chlorhexidine and aziridine. Amine hardeners and formaldehyde induced multiple small indifferent reactions. For several other