HOUSE DUST MITE ALLERGY IN ASTHMATIC PATIENTS OF IRAN
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House dust mite allergy poses a world-wide health problem, causing respiratory (perennial rhinitis and asthma), or dermatological (urticaria and eczema) symptoms. In order to determine the prevalence of house dust mite (HDM) allergy in patients with bronchial asthma (BA), we reviewed clinical records and allergy skin test (AST) results of 7694 BA patients, aged 4-50 years, coming from various climatic regions of Iran. Although the overall mean rate of positive AST reactions to the common HDMs, dermatophagoides pteronyssinus (Der. P.) and dermatophagoides farinae (Der. F.) were 13 and 12.5%, respectively, we observed a considerably higher number of positive AST reactions in BA patients coming from the Caspian Sea area, i.e. 36% for Der. P. and 35% for Der. F. Considering the temperature and the humid climate of the Caspian Sea region, we conclude that HDM is more prevalent in this area of Iran than the rest of the country which have either a dry-temperature or dry-warm climate.

EFFECT OF TEHRAN AIR ON ALLERGENICITY OF PLANT POLLEN GRAINS
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Caprices Arizonic plants are presently cultivated in wide scale in Tehran area as landscape plants. Defined months of pollen grains of these plants were collected from different zones of Tehran area and exposed gently to a stream of highly polluted Tehran air for 10, 20 and 30 days. Aqueous extracts of control (non-aerated) and aerated pollen grains were prepared and injected intra-dermally into healthy two-month old guinea pigs. The following were considered allergic symptoms: skin reactions and serological findings indicating an increase in the total number of leukocytes, eosinophils and neutrophils in the treated guinea pig. Results indicated that the degree of allergenicity which occurred was directly proportional to the duration the pollen grains were aerated with Tehran air stream. An increase of allergic symptoms was observed with increasing duration of aeration of pollen grains, and the grains aerated for 30 days caused the most intense allergic reaction. The lethal effect of aerated and control pollen grains on treated guinea pigs was also investigated. The results revealed a similar pattern of increased lethality with increasing period of aeration of pollen grains. Extracts obtained from pollen grains exposed to Teheran air stream for a period of 30 days produced the highest lethal effect. A qualitative assay was also made on the mineral elements present at the outer surface of pollen grains which revealed a change in the amount of some &6elements. These changes were found to correlate with the allergenicity as well as the duration of exposure of the grains to polluted air. Our study indicates that pollution in Tehran air induced a quantitative increase in some of the mineral elements at the surface of the pollen grains, a modification which influenced their allergenicity.
AIRBORNE ALLERGENIC FUNGI IN THE AIR OF NORTH-EAST IRAN
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The aerobiology of fungi and their products include a significant contribution to human atopy. Fungal allergens are numerous and vary qualitatively and quantitatively in extracts used for allergy diagnosis and immunotherapy. Immediate hypersensitivity to airborne fungal spores (mold allergy) is a well-recognized disease. In this study, a total of 980 samples from the air of North-east Iran were taken between December 1993 and November 1994. Among isolated allergenic fungi, cladosporium, penicillium, alternaria and aspergillus spp were the most frequently isolated. This investigation showed that the type of vegetation, diurnal periodicities and daily weather conditions affected the airspsora at each site. Arboreal sites produced airspsora most prolifically at midday, but other sites produced airspsora abundantly during afternoon and least abundantly during morning.