

## Exposition aux aldéhydes dans l'air: rôle dans l'asthme

Coordinateur : Frédéric De Blay - Hôpital Lyautey

Chemical pollutants like formaldehyde seems to be important in the development of allergic asthma. We have demonstrated in a case study with 162 dwellings that the formaldehyde, acetaldehyde and hexanal were the principal aldehydes measured in indoor environment. New covering (paint and/or wall paper and/or stratified flooring) would be a potential source of hexanal. Formaldehyde have a multiplicity of sources.

We observed that indoor levels of formaldehyde were similar in houses of the asthmatic subjects and the controls (32.6 and 37.7 $\mu\text{g m}^{-3}$ , respectively,  $p = 0.696$ ).

On the other hand, in the asthmatic population, we observed a more important severity of asthma when the asthmatics were exposed to higher concentrations of formaldehyde (>60 $\mu\text{g m}^{-3}$ ).

Moreover, exposure to 100 $\mu\text{g m}^{-3}$  during 30 min of 19 asthmatics subjects before a bronchial challenge test with house dust mite allergens increased the immediate and late bronchial response.

According to our results, it seems to be necessary to consider the emission of formaldehyde in domestic and occupational indoor environment. The manufacturers might give information about the emission of formaldehyde of their product.