

Allergy

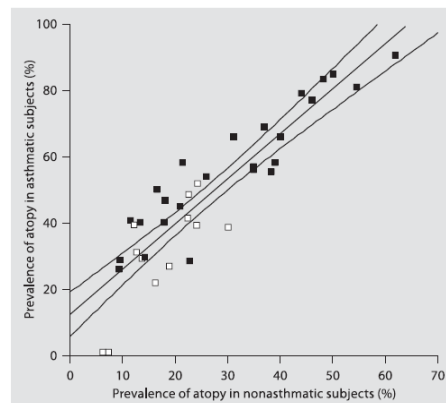
R Ronchetti et al. *Int Arch Allergy Immunol* (2007) Vol.142 p 79–85

The Prevalence of Atopy in Asthmatic Children Correlates Strictly with the Prevalence of Atopy among Nonasthmatic Children

Contrary to mainstream opinion there was no clear link between susceptibility to allergens [i.e. Atopy] and asthma rates. Instead it was found that prevalence of atopy was uniform regardless of asthma rates. Interpretations include the strong possibility that there is an [unidentified] environmental cause of atopy.

In a review of studies of asthma and atopy it was found that the prevalence of asthma in children was not closely related to the prevalence of atopy [the tendency to suffer from allergic disease]. If a high proportion of asthma were allergic asthma then a strong correlation would be expected. None was found.

On the other hand, when the prevalence of atopy in asthmatics and non asthmatics was studied the following graph was produced:



The graph clearly shows that the measured prevalence of atopy in those without asthma correlates with the measured prevalence of atopy in those with asthma. The slope of the graph is greater than unity, i.e. Atopy is more prevalent in Asthmatics than non-asthmatics, which would be the expected if some asthma [approximately 20%] was allergic asthma.

Comment

If allergens were the principle cause of asthma then those who are sensitive to allergens would be more likely to be asthmatic. The first finding of this review implies that allergens are not the principle cause of asthma in children.

The second finding, that the prevalence of atopy varies in populations almost regardless of asthma status points to the real problem being the prevalence of atopy and not, as is usually assumed, exposure to allergens. The correlation either points to genetic variation in populations or, to an environmental cause of atopy. In our view, the recent rapid increase in atopy prevalence could not be completely explained by genetic factors. There should be at least some contribution from an environmental factor.

An environmental cause of atopy could give rise to liabilities. A person who is made sensitive to allergens would have the possibility of suing those who expose him to allergens, without which there would be no harm done, and those who caused his atopy.

Most product and pollutant testing focuses on detecting allergenic properties, not the likelihood of increasing the rate of atopy. That is, chemical safety testing could easily have missed this property.

The lowest prevalences of atopy were in Libya and Estonia. The highest in Australia, Hong Kong and Malaysia.

It seems unlikely, but remains possible, that the results reported here were the effect of systematic errors in measurement.

