The prevalence of laboratory animal allergy in higher education in the UK: is it what is expected?

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ABSTRACT

Background: The prevalence of laboratory animal allergy in exposed populations is reported to be as high as 56%. In spite of an increase in attention to risk factors and control measures, including personal protective equipment, there is not a significantly reported decrease. Universities in the UK are expected to have a greater problem than commerce as they have poorer preventative and surveillance practices.

Aim: This study was undertaken to ascertain the prevalence of laboratory animal allergy in a UK university and compare it with that found in a commercial toxicology house, with consideration given to what predictive factors may be useful.

Method: Three groups, comprising a university exposed, commercial exposed and control, were examined in a cross sectional study using a questionnaire and total IgE measurement.

Results: The prevalence of laboratory animal allergy was found to be 38% in the university exposed group of 76 subjects and 39% in the exposed commercial group of 79 subjects. Ascertainment and confounders were an inclusion frequency of 85% for the exposed university group, 75% for the exposed commercial group and 100% for the controls, with group comparability for age, gender and atopy. Smoking was significantly different between the groups as was indoor pet exposure, both being more prevalent in the exposed commercial group. This group also had greater intensity of exposure as assessed by hours of exposure and hours involved in husbandry. Murines were the commonest laboratory animal exposed to. 88% of exposed university subjects and 71% of the exposed commercial subjects encountered ≤ 3 species.

Conclusions: No significant difference in the prevalence of laboratory animal allergy was found between the exposed groups. IgE equal to or greater than 100 kU/L plus involvement in husbandry tasks was a useful indicator of laboratory animal allergy.

Contact with other respiratory sensitisers, use of control measures and the effect of health surveillance activity for the exposed groups were not ascertained. Further examination of exposed sub-populations using longitudinal methodology is required.