LETTERS TO THE EDITOR

doi:10.1093/occmed/kqi008

Re: Preventing baker’s asthma: an alternative strategy

Dear Sir,

We read with interest the recent article by Smith [1] concerning health surveillance in the baking industry and, in particular, the immunological and clinical characterization of bakers with work-related nasal and/or respiratory symptoms.

We are also very much interested in this particular issue, and agree that there is a substantial body of literature to support the fact that many workers exposed to flours and additives in the baking industry develop symptoms due to an ‘irritant’, or non-allergic medicated mechanism.

However, we would like to mention a few specific points in relation to the paper.

If the endpoint in the diagnosis of occupational asthma is chosen as those workers with work-related symptoms and sensitization to (at least one) workplace-encountered allergens, it is clearly important to measure specific IgE to an exhaustive list of known allergens. Whilst most sensitized workers will be sensitized to commonly encountered allergens (i.e. wheat flour and fungal alpha amylase), some may also be sensitized to less common agents (e.g. rye, barley, oats, storage mites or other added enzymes such as cellulase, xylanase or bacterial amylase).

In addition, Smith does not mention the total number of workers with respiratory symptoms who do not have measurable specific IgE antibodies to the workplace allergens tested. In a recent study, our group [2] retrospectively analysed 86 bakers complaining of any respiratory symptoms. Of the 34 workers with work-related respiratory symptoms, only 7 (21%) had such evidence of specific IgE to common bakery allergens.

While it is reasonable to concentrate on the health issues associated with sensitization, it is clearly not sensible to consider those with symptoms and no sensitization as not relevant for two reasons.

First, the presence of specific IgE (assuming this is comprehensively tested) is not a prerequisite in the diagnosis of occupational asthma [3]. It is not adequate merely to class these individuals as suffering from irritant symptoms without a better diagnostic definition of such symptoms. Indeed, there are some data to suggest that work-related symptoms, irrespective of the cause and sensitization, carry a poor prognosis [4].

Second, the remaining workers with work-related symptoms and negative specific IgE are likely to constitute a mix of other respiratory diseases, some of which may be work related. Chronic obstructive pulmonary disease is common in many elderly smokers and there is at least a reasonable epidemiological [5] and clinical evidence [6] to support the role of occupational dust exposure as being causative. Again, from our recent data, of the 27 bakers with work-related respiratory symptoms and negative specific IgE, eight had worked in the baking industry for more than 5 years, and three for more than 20 years. This suggests that these bakers are not just people with short latency irritant symptoms, but may indeed have developed either unrecognized occupational asthma or COPD.

In conclusion, health surveillance schemes are at the heart of preventing harm from significant work-related respiratory disease, but must adopt sound evidence-based diagnostic definitions, and encompass a full immunological assessment when necessary.

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References


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Re: Occupational respiratory disease in mining

Dear Sir,

We were interested to read Ross and Murray’s overview [1]. In the section concerned with coal mining, they refer