

Lung disease

J Bousquet and AM Vignola. Allergy. June (2001) Vol. 56 # 6 p 466.

A non-systematic review of the proposed association between environmental tobacco smoke (ETS) and asthma.

It is widely accepted that ETS can act as an irritant, making asthma more symptomatic. The outstanding issue is whether or not ETS aggravates asthma (i.e. makes it worse) or even causes it. In a recent consultation document, HSE stated their belief that ETS makes asthma worse, but were unable to support this assertion with clear evidence or, a consensus finding.

This editorial points out a number of reports that the editors believe have been over represented as establishing the case for a causal role.

This is not a systematic review but points out:

- *Greer et al. J. Occup. Med (1993) Vol. 35 p909* found a RR for the development of asthma over a 10 year period of 1.45 (95% CI = 1.21 to 1.75) using proxy measures for ETS exposure and a Qr. for 3914 nonsmoking adults.
- *Leuenberger et al. Am J Resp Crit Care Med (1994) Vol.150 p 1221* found an RR for physician diagnosed asthma of 1.39 (95% CI = 1.04 to 1.86) for 4197 never smoking adults - exposure assessed by Qr.
- *Hu et al. J Asthma (1997) Vol.34 p 67* showed that young adults from home with smokers had a higher risk of physician reported asthma OR = 2.9 (95% CI = 1.6 to 5.6)
- *Thorn et al. Allergy (2001) Vol. 56 p 287* found OR = 2.4 (95% CI = 1.2 to 3.5)

Taken together, these papers would seem to point to a consistent trend for ETS to be associated with increased risk of developing asthma. On closer inspection the evidence is strongest for an association for children and young adults.

The editors point out that, in spite of this, doubts remain about whether the studies can discriminate between revealed-by and caused-by. For example, none of the reports can demonstrate with any certainty that new cases of asthma were not simply cases that no-one had noticed before.

Comment

A helpful but incomplete and unsystematic review. The review tends to suggest that the purely scientific case for a causal link between ETS at work and asthma is as yet unsound.

There may be a stronger case for an effect on children and young adults but methodological inadequacies leave reasonable doubt about this.

A complete, systematic review would be of interest.

