

Allergy

E Huovinen et al. Allergy. October (2001) Vol. 56 # 10 p 971.

Stress is believed by many to predispose to asthma, but is there any evidence?

Atopic illness is generally agreed to be associated with depression but no causal link between stress and asthma has been found so far.

11540 adults aged 18 to 45 were surveyed in a longitudinal study from 1975 to 1990.

Psychological and psychosocial factors were established using standard instruments: extroversion, neuroticism, subjective stress and life satisfaction.

Diagnosed Asthma status and change of status were recorded.

At baseline the prevalence of adult asthma was 1.7%, but if COPD is excluded, prevalence = 1.2%, i.e. 30% of those diagnosed with asthma had another obstructive pulmonary disease as well.

At baseline, the odds ratios (OR) for asthma and trait were as follows (statistically significant ones only):

- Low life satisfaction OR = 1.85 (95% CI = 1.07 to 3.18)
- High neuroticism OR = 1.78 (95% CI = 1.12 to 2.83).

Prevalence was not associated with extraversion or stress.

At the end of the study, High extraversion (women only) was predictive of new cases OR = 1.86 (95% CI = 1.16 to 2.96).

Life woes and stress were not predictive.

Comment

An apparently powerful study found no causal link between stress and asthma. On the contrary it found extroversion to be a risk factor. Extroversion is not usually associated with susceptibility to stress.

The study found some evidence that asthma is associated with low life satisfaction and neuroticism. Given that these traits were not predictive of new cases of asthma it might be concluded that they were a result of asthma, but this would be an over-interpretation. The association could be coincidental.

Studies to determine causal direction should include children.

