study; thus the original plea for stringent criteria was distributed widely by our group in 1984. It is ironic that those in a position to work with us in achieving these criteria have declined to do so.

In conclusion, we will continue our studies with multiple institutions and will be pleased to provide reprints of our data, since data alone provide the proper basis for opinion in science and medicine.

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Allergy Skin-Test Reactions and Chronic Airflow Obstruction in Children

To the Editor:

A high level of total serum IgE in smokers1 has been related to the impairment of ventilatory function.2 This finding was confirmed in only one of two recent cohort studies.3 The authors concluded that elevated levels of serum IgE are probably associated with functional impairment. These studies used percent of predicted FEV1 as an indicator of functional impairment. Nevertheless, the response to inhaled bronchodilator drugs can be a more sensitive method of detecting functional impairment in an early stage, ie, in children.

METHOD

We studied 30 skin-test positive children (23 boys and 7 girls, ages 11 to 14 years), without any respiratory symptom (19 rhinitis, 16 healthy). They were compared with a group of age and sex-matched normal subjects. Respiratory symptoms, family history and smoking habits of parents were investigated by a modified ATS questionnaire.4 Skin tests were carried out with extracts of grass, Dermatophagoides pter, birch, mugwort and parietaria. Lung function tests (lung subdivision, Raw, Vtg and maximal expiratory flow volume curve [MEFV]) were measured by a constant volume integrated flow plethysmograph (model 2800, Gould, US) using a Hans Rudolph pneumotach. All tests were measured in triplicate except Raw, of which five acceptable curves were recorded.

Lung subdivision, Vtg and MEFV (in triplicate) and Raw (at least five acceptable curves) were measured at baseline. Fenoterol (200 mcg) was administered via a DeVilbis 546 nebulizer attached to a Mefar (Brescia, Italy) dosimeter. Postdilator measurements were taken 15 min after the last inhalation.

RESULTS

The two groups did not differ with regard to smoking habits of parents (chi-square test, \( p > 0.05 \)). One-way variance analysis did not show any difference in the baseline measurements (FEV1, FEV1/FVC, FEV1/FEV15-75, FEF75-65, Vtg and Scaw). After fenoterol inhalation, changes in FEV1, FEV1/FVC, FEF75-65, Vtg and Scaw were not significantly different in the two groups (\( p > 0.05 \)). On the other hand, FEV1/FVC increased more significantly in skin-test positive children than in control subjects (mean 25.6±10 vs 8±15 percent, \( p < 0.025 \)). This suggests that an obstruction of the lower bronchial tract is present in skin-test positive children, even if they are respiratory symptom-free. This can result in an increased susceptibility to chronic lower respiratory disease, and cigarette smoking can be the trigger to the development of symptomatic lung disease.

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