

CORRESPONDENCE

Prevention of asthma in children at risk: Avoiding cow's milk for 6 months and tobacco smoke forever – Nothing special needed?

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Editor,

Maas et al. (1) published their interesting negative results of the PRESVAC study aimed to prevent asthma and allergy in children at high risk. In all, 476 children with allergic asthma in first-degree relatives were recruited before birth, 222 children were allocated into multifaceted environmental exposure-reducing intervention, and 221 children were controls. The program consisted of prenatal and postnatal avoidance of tobacco smoke exposure and avoidance of hairy pets, solid foods, and cow's milk for 6 months (2). Exposure to house dust mite and to cat and dog dander decreased allergy but exposure to tobacco smoke did not. Although cow's milk and solid foods were started later in the intervention group, there was no difference in the length of breast feeding (1). The authors stated that the negative result was caused by a poor adherence of the parents in the intervention program. However, a more probable explanation is that environmental exposure-reducing interventions, except cow's milk and tobacco smoke avoidance, simply are ineffective.

In Finland, a nationwide program aimed to prevent allergy and asthma was launched in 1979 and was applied to all newborns with asthma or allergy in their first-degree relatives. Counseling was given in maternity wards and well-baby centers. The measures included breast feeding for 6 months, postponing cow's milk-based formulas and solid foods until age 4–6 months, avoidance of classic allergens in the diet for 9–12 months, and avoidance of exposure to tobacco smoke and hairy pets for at least 12 months (3). As the program was not monitored at the national level, we recruited 100 newborns at risk and 100 healthy controls in 1979 into a follow-up study. Ninety-one children at risk attended the follow-up visit and clinical examination at age 6 years; 47 had followed the program successfully and 44 had not (3). There were no differences between these two groups in the occurrence of asthma or allergy (4). Sixty-eight children were monitored until age 9 years, and the result remained negative (5). As expected, asthma and allergy were at both visits more common in children at risk than in controls. The nationwide

program in Finland was discontinued in the 1990s, but the discontinuation was not easy. Many parents and even professionals believed in the program. Thereafter, all mothers, irrespective of allergy in the family, have been encouraged to breast-feed their babies for 4–6 months, and all smoking parents have been encouraged to stop smoking or to smoke only outdoors.

As the authors concluded, there are two recent studies suggesting some benefits from corresponding programs, one from the Isle of Wight (6) and one from Canada (7). In the Canadian study, the randomized intervention consisted of reduction in exposure to house dust mite, avoidance of hairy pets, avoidance of tobacco smoke, exclusive breast feeding >4 months, and delayed introduction of solid foods, and the program was beneficial with a 56% reduction in doctor-diagnosed asthma at age 7 years (7). However, in their later analysis, the only individual component that decreased asthma risk was the avoidance of dog keeping (8). Surprisingly, avoidance of tobacco smoke and exclusive breast feeding >4 months even increased the asthma risk (8).

The non-successful nationwide experience from Finland in 1980s and 1990s, in agreement with the findings of Maas et al. (1), suggests that there is no justification for any environmental avoidance interventions for children with asthma or allergy in first-degree relatives. The multifaceted programs cause additional work, additional cost, and even troubles in families and health care.

All mothers should be encouraged to breast-feed their babies for 4–6 months, and all smoking parents should be encouraged to stop smoking.

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