

CORRESPONDENCE

Relationship of dietary fish intake to level of pulmonary function

To the Editor:

I read with the greatest interest the paper by SCHWARTZ and WEISS, published in the European Respiratory Journal [1] about "the relationship of dietary fish intake to level of pulmonary function in the first National Health and Nutritional Examination Survey (NHANES I)".

The findings of this study are close to the results that we obtained in a prospective double-blind study of N-3 fatty acid intake in asthmatics [2]. We observed that 1 g per day of N-3 fatty acid, given to asthmatics during one year in addition to their diet, was responsible for an increase in forced expiratory volume in one second (FEV₁) 9 months later, with a magnitude very similar to that found in the NHANES I study. Tolerance of this regimen was good and every patient completed the study, with no side-effects. Each group was comparable, in terms of asthma severity and drug regimens. Compliance was monitored every month, and spirometry every three months.

The study by SCHWARTZ and WEISS [1] was designed to collect data in a retrospective mode, for the last three months. Pulmonary history and treatment of the people included are not clearly indicated. Their aspirin and anti-inflammatory drug consumption in general is unknown. These compounds have an anti-inflammatory effect very close to that of N-3 fatty acids, which is the supposed

reason of their action in asthma. Moreover, N-3 fatty acids have an anti-thrombotic effect, which explains their use in the prevention of atherosclerosis, just like aspirin.

The studies quoted in this paper gave these fatty acids for too short a period of time, which is opposed to the notion of allergic disease, then exposed to allergens (dust mites, which are the most frequent allergen) for the whole year. We treated our patients for one year, and were able to demonstrate the value of N-3 fatty acids in asthma.

Finally, two different approaches have produced a similar result, which supports the common hypothesis.

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References

1. Schwartz J, Weiss ST. The relationship of dietary fish intake to level of pulmonary function in the first National Health and Nutritional Examination Survey (NHANES I). *Eur Respir J* 1994; 7: 1821-1824.
2. Dry J, Vincent D. Interest of fish oil in asthma: results of a one year double-blind study. *Int Arch Allergy Appl Immunol* 1991; 95: 156-157.

REPLY

From the authors:

We are grateful to Dr Vincent for drawing our attention to his paper [1] on a one year trial of fish oil in asthma. We agree with him that one reason for the positive results may have been the length of treatment, which is considerably longer than the negative trials.

We wish to re-emphasize that our study was not of patients, but of a general population, in whom the use of any medications was probably low because the participants were presumably healthy. Dr Vincent's point

is, however, still correct, in that we have not evaluated how concomitant drug use, including aspirin, may have influenced our results.

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References

1. Dry J, Vincent D. Interest of fish oil in asthma: results of a one year double-blind study. *Int Arch Allergy Appl Immunol* 1991; 95: 156-157.