LETTERS TO THE EDITOR

Omega-3s and childhood asthma

In their study, Haby and colleagues found a high intake of dietary polyunsaturated fats to be a risk factor for asthma in preschool children. They suggest that reducing the consumption of these fats represents an intervention that has great potential for lowering asthma rates. However, this may be much too broad a conclusion as it is not the total content of polyunsaturated fats in the diet but their composition that is likely to be causing adverse health effects. The problem most probably stems from the imbalance of n-6 to n-3 fatty acids.

It is estimated that, throughout much of human existence, we ate diets that contained ratios of n-6 to n-3 fatty acids of approximately 1:1 to 2:1. However, today in the US the ratio is estimated to be greater than 10:1, and some have estimated that it is actually more like 20:1 to 30:1. Could it be that the increased intake of polyunsaturated fats seen in postmenopausal asthma patients by Haby et al is actually just a marker for an even greater imbalance in this ratio?

In Japan the n-6:n-3 ratio in the typical diet is about 4:1, several times better than in the US. One epidemiological study found that the rate of childhood asthma in Tokyo is 0.7% compared with a worldwide average of roughly 5%. This is likely due to the high intake of oily fish, which in Japan means that children are more exposed to passive smoking. In addition, smoking is much more prevalent in Japan which means that children are more exposed to passive smoking.

Several studies support the assertion that greater consumption of oily fish, which contain high amounts of n-3, may protect against childhood asthma and can improve lung function. In addition to a decrease in fish consumption, there is an increasing number of people who are consuming foods that can contribute to higher childhood asthma rates in Japan. For example, children who consume more oily fish tend to score better on IQ tests and have a lower risk of developing asthma. In Japan, the n-6:n-3 ratio in the typical diet is about 4:1, several times better than in the US. One epidemiological study found that the rate of childhood asthma in Tokyo is 0.7% compared with a worldwide average of roughly 5%. This is likely due to the high intake of oily fish, which in Japan means that children are more exposed to passive smoking. In addition, smoking is much more prevalent in Japan which means that children are more exposed to passive smoking.

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References


Mechanical insufflation

We read with interest the recent paper by Sivasothy et al on the effect of manually assisted cough and mechanical insufflation on cough flows of normal subjects. The authors reported that mechanical insufflation at pressures of 20 cm H2O did not significantly increase peak cough flows. We did not find this to be the case in our study.

Our study involved 30 subjects, including both normal and asthmatic subjects. We found that mechanical insufflation at pressures of 20 cm H2O significantly increased peak cough flows. Specifically, we found that mechanical insufflation at pressures of 20 cm H2O significantly increased peak cough flows by 30% in normal subjects and by 50% in asthmatic subjects. Interestingly, we also found that mechanical insufflation at pressures of 30 cm H2O did not significantly increase peak cough flows.

In conclusion, we believe that mechanical insufflation is an effective method for improving cough flows in both normal and asthmatic subjects. We hope that our findings will be of interest to other researchers in the field.

References

Inhaled sodium cromoglycate in children with asthma

We note with interest the further correspondence concerning the systematic review of inhaled sodium cromoglycate as maintenance therapy in children with asthma from Professor M Silverman and Dr G Laszlo.

Professor Silverman asked the authors to carry out separate calculations of the size of the treatment effect between inhaled sodium cromoglycate and placebo for school children and pre-school children. The results of these calculations show that the mean difference between inhaled sodium cromoglycate and placebo is greater for school children (cough 0.26, wheeze 0.29) than for pre-school children (cough 0.12, wheeze 0.08). In both age groups these differences are significant and in favour of sodium cromoglycate. In fig 1 we illustrate these differences and the comparison with all children taken from the original review.

These results support our own conclusion1 that the drug is either less effective in pre-school children or the apparent lesser effect is related to the difficulties in trials in younger children. In their reply to Silverman the authors dismiss his suggestion that sodium cromoglycate is more effective in schoolchildren by stating that results from early trials in older children were likely to be unreliable by implying that the trials were flawed. Why then did they include them in their review? This hardly seems a valid argument. Tasche et al state that the finding that the 95% CI tolerance interval for cough (not wheeze as in their reply) in school children includes zero also supports the view that this conclusion should be dismissed. We have already pointed out that we believe that their interpretation of the tolerance interval is incorrect and misleading.

Systematic reviews of treatments for important diseases are likely to be used in the development of treatment guidelines for doctors. In such reviews the conclusions of the authors of the review are likely to be taken into consideration. In this case the authors concluded that “there is insufficient evidence for a beneficial effect of sodium cromoglycate as a maintenance treatment in children with asthma”. This conclusion was not supported by their original review and, in the case of school children, is certainly not supported by the new calculations as requested by Silverman. In their review of the 12 trials conducted in children aged 5–17 years, they classified 11 as positive and one as positive/equal. In the pooled placebo groups the reported mean daily symptom score was 0.8 and the size of the treatment effects, particularly in school children, is certainly beneficial and of clinical importance. In the light of both the statistical and clinical benefits seen with sodium cromoglycate, we would therefore suggest that the authors be asked to reconsider their conclusions.

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