ingestion, with clear health implications.

The effect of zinc on pneumonia in children: is it really ineffective?

Dear Sir:

We understand the scientific point underlying the response of Mellor et al with regard to our study in stating that the differences in the amounts of malondialdehyde in the burgers ingested likely influenced the results we observed in urinary malondialdehyde concentrations. Although an additional intervention group to administer the same cooked burger with spices added after the frying process and before consumption would test the effect of spices on the generation of malondialdehyde during digestion, such a study asks a different research question which has little real-world relevance. The fact is that the spice mixture we used did decrease malondialdehyde markedly, and we attempted to determine whether this difference was reflected in the malondialdehyde in the urine. The reduction in the meat patty of malondialdehyde was greater with spices than in the control burger but not to the same extent as what was observed in the urine (71% compared with 49%). Clearly, the public health implication here is that applying spices to meat products before cooking reduces lipid peroxidation product ingestion. Not only dietary fat and plasma lipoproteins but also peroxidation status of edible lipids may influence atherosclerosis (1, 2). The further metabolism of malondialdehyde and any reduction or increase in this peroxidation product in the body is of interest for future research but does not reduce the importance of our observation. In animals, it has been shown that consumption of partially oxidized food could increase lipid peroxidation in the stomach and the absorption of cytotoxic lipid peroxidation products into the body (3). In a human study by the same group, it was found that subjects who had consumed turkey cutlets pretreated with red wine extract before cooking and consumed a glass of red wine during the meal had a greater reduction in plasma malondialdehyde than did those who consumed the pretreated cutlets alone. The red wine in the stomach reduced the accumulation of malondialdehyde in plasma, and in some volunteers the plasma malondialdehyde concentration was even reduced below baseline, showing the bioreactor function of the stomach in modulating lipid peroxide generation (4). Finally, the health claims process both in Europe and the United States must consider relevant outcomes and appropriate controls, and in our study the control burger cooked with salt was appropriate for the intended use of spices in the prevention of excess lipid peroxide ingestion, with clear health implications.

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REFERENCES


The effect of zinc on pneumonia in children: is it really ineffective?

Dear Sir:

Valentiner-Branth et al (1) carried out a randomized controlled trial in children aged 2–35 mo with pneumonia to investigate the effect of zinc supplementation. The authors concluded that zinc supplementation as an adjuvant therapy did not reduce the risk of treatment failure or accelerate the recovery in this population. However, some methodologic pitfalls caught our attention and should be highlighted. The authors intended to conduct a double-blinded placebo-controlled intervention. However, it is our opinion that the high rates of adverse events related to zinc intake, such as regurgitation and vomiting a few minutes after zinc supplement administration, may have compromised the blinding. The interviewer responsible for the administration of the supplement was the same person who was responsible for evaluation of clinical signs of pneumonia aggravation and referring patients to hospital. A failure in keeping the interviewers blinded may have influenced data collection.

Another issue to be pointed out regards the power of the study to evaluate the effect of zinc on severe pneumonia cases. The number of participants included in this stratum was considerably lower than the calculated sample size. Therefore, a β-error caused by insufficient