Antioxidants in children with inflammatory bowel disease

Dear Sir:

In Table 3 of the article by Hoffenberg et al (1), plasma ascorbic acid concentrations are reported that are about seven times greater than those that might be expected. Mean values between 40 and 70 μmol/L would be anticipated in these groups rather than the 270–420 μmol/L recorded. A possible explanation is that a decimal point has been omitted, giving values 10 times greater than were in fact measured. Such an error would mean that the actual findings were, in fact, rather lower than expected, but this could be explained by the technique used. The study used plasma that was stored without prior precipitation of proteins with metaphosphoric acid. Under these conditions, even with storage at −70 °C, there would be a gradual loss of ascorbic acid, resulting in lower values than anticipated.

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REFERENCE


Reply to CJ Schorah

Dear Sir:

We thank Schorah for pointing out our error. A decimal point was omitted in the values for ascorbic acid in Table 3 of our paper (1). The ascorbic acid values should be divided by 10, thus, 400 μmol/L should be changed to 40 μmol/L. The correct values are given below in the erratum on page 152.

Schorah points out that the values are in the lower range of normal, perhaps due to degradation during storage of the plasma samples. The assay used, gas chromatography–mass spectrometry, is very specific for ascorbic acid (mass 176). It is possible that other assay methods include other forms of ascorbate, such as ascorbic acid sulfate and dehydroascorbic acid, which are not measured by our assay, thus leading to higher reported values than we measured. We emphasize that blood from normal control and disease subjects was handled in an identical fashion. Blood was drawn on the same day, stored for the same length of time and processed in blinded fashion. Values from control samples that were stored for longer or shorter periods were similar. Thus, the study design controlled for degradation, and we stand by our conclusion that ascorbic acid values are lower in children with inflammatory bowel disease than in control subjects.

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