Post-prandial syncope due to nitrates in food

Sir,

A case is reported of a 58-year-old man who suffered a syncopal episode after eating some sausages. The high nitrate content of these may have been responsible, causing hypotension via production of nitric oxide. Although nitrate-induced methaemoglobinaemia is rare, this potentially fatal condition should also be suspected.

At a physician's summer party, an otherwise healthy 58-year-old man consumed 10 sausages over a 20-minute period. He had no significant medical history and was taking no medication. Shortly afterwards, he fell to the ground without loss of consciousness and remained there for approximately 10 minutes during which time a doctor recorded his vital signs. The patient appeared flushed and had a blood pressure of 80/60 mmHg. He was alert and had no neurological deficit. Recovery was rapid and two minutes later his blood pressure was 125/60 mmHg. His progress was uneventful thereafter and no abnormalities were found at follow-up.

The preserving and colour-stabilising properties of nitrates and nitrites in cured meats dates back through the ages of time to the saline deserts of Hither Asia. The upper legal limit of nitrate concentration in meat is 200 ppm. Each sausage eaten here had a nitrate concentration of 150 ppm and the 10 sausages consumed were calculated to be equivalent to 68 mg of ingested nitrate. A review of the letter suggests that the patient may have been fortunate to avoid more serious complications. Nitrate is converted to nitrite in the gut and in turn can form methaemoglobin, displacing the oxygen dissociation curve to the left. Symptoms are due to hypoxia and occur at concentrations of methaemoglobin above 10%. Treatment includes oxygen, gastric lavage, intravenous methylene blue (a coenzyme for a reductase involved in methaemoglobin breakdown) and, in very serious cases, exchange transfusion. Although nitrate-induced methaemoglobinaemia is rare, it should be considered in cyanosed patients in the absence of other cardiac or respiratory problems.


Hyperhomocysteinaemia

Sir, it was with great interest that I read the article by van den Berg and Boers in hyperhomocyssteinaemia. Although the title was somewhat provocative, it was appropriate and also timely. An association between hyperhomocysteinaemia and premature coronary artery disease was first reported two decades ago, but homocysteine has emerged as the new player in the field of coronary risk factor only recently. The causes of hyperhomocysteinaemia are multifactorial and the authors gave a comprehensive review of the various risk factors. They noted that possible relationships between plasma homocysteine and cardiovascular risk factors for vascular disease have been studied but no such relation was established for tobacco smoking. However, a group of investigators from Hong Kong have recently reported that cigarette smoking was a risk factor. They noted a strong correlation between hyperhomocysteinaemia, smoking and coronary artery disease. Furthermore, according to these authors, only smoking

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