Correspondence

‘Mobile phone sign’ in early vitamin B12 deficiency

Sir,

A healthy 54-year-old computer engineer became concerned enough to consult his primary-care physician when he noticed he could no longer feel his mobile phone ‘ring’ when it was in ‘vibration only’ mode in his pocket. A review of his health failed to reveal any other complaint, except some memory disturbances, which were fairly recent. Physical examination was entirely normal, except for a significantly decreased vibration sense. Blood tests were notable only for low serum B12 levels (150 pg/ml, normal 222–1132 pg/ml). There was no anaemia, no macrocytosis, and no abnormality of the peripheral blood smear. The patient had been a strict vegetarian for many years. No serum antibodies to intrinsic factor were discovered, and the Schilling test (first part) was normal. He was treated with vitamin B12 injections, which he continues to receive monthly. His serum B12 level is currently normal, and he reported that he noticed an improvement in his memory and started to feel the vibrations of his mobile phone again, several weeks after commencing treatment.

Pernicious anaemia is not uncommon in the elderly, being present in 2.3% of men and 4% of women in one community-based study. Other causes of cobalamin deficiency, such as gastritis, gastrectomy or inadequate dietary intake (as in our patient), can further increase its prevalence. Thus as many as 5–10% of people aged 65 years or more in the UK, may have mild, and usually subclinical, cobalamin deficiency. Early diagnosis is important, since a myriad of adverse outcomes can be averted, including cognitive decline, hyperhomocysteinemia, and increased risk of vascular events and gastric cancer. Importantly, a significant proportion of patients with neurological abnormalities secondary to cobalamin deficiency have normal haemoglobin, haematocrit and red cell volume.

This ‘mobile phone sign’ can be used as a subtle early sign of vitamin B12 deficiency, since diminished vibratory sensation in the lower extremities is a common early finding. However, it is not specific, since similar effects may occur in other neurological illnesses, most commonly diabetic neuropathy. However, it may be worthwhile to investigate the utility of this sign, either as an instant screening test in the practitioner’s office or even for self-screening by patients at risk, most of whom own a mobile phone today.

Much has been said about the possible adverse effects of using mobile phones, especially for prolonged periods. This ‘mobile phone sign’ appears to be one potential health benefit associated with mobile phone use.

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References


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