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Images of the month 1: 'The scurvy' – diagnosis by gestalt

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Fig 1. a) Multiple non-blanching petechiae affecting legs and fading ecchymotic lesions. b) Poor dental hygiene with advanced caries and gingival hypertrophy.

KEYWORDS: Scurvy, vitamin C, James Lind

Case presentation

A 34-year-old man was admitted to hospital with progressive and severe lower limb pains, increasing wheelchair dependence and a spreading rash affecting the legs. Admission test results were normal including clotting screen and platelet count. Suggested diagnoses on a busy post-take ward round included leukocytoclastic vasculitis, hyperviscosity syndromes and cryoglobulinaemia. Suspected neurological pathologies prompted neuroimaging.

Subsequently he described painful bruising affecting his feet in the absence of trauma. Extensive ecchymoses and a florid, symmetric, non-palpable petechial rash were evident (Fig 1a). Oral examination revealed poor dental hygiene, advanced caries and gingival hypertrophy (Fig 1b). A dietary history described limited food intake and a notable absence of fruit and vegetables. The patient subsisted on an exclusive soft diet of cereals and pasta, partly due to significant dental pain. He was a smoker. His body mass index was 17.1 kg/m², but there were no features of malabsorption.

Diagnosis

Diagnosed with scurvy, the patient was treated with high dose ascorbic acid and nutritional supplements. He was offered dietary support, physiotherapy and was referred for maxillofacial dental treatment. After three weeks he had recovered fully and gained weight. The rash had resolved completely.

Discussion

Prevalent in the age of sail, scurvy became a major cause of morbidity and mortality among ships' crews. Effective treatment was described in 1753 by James Lind, a Royal Navy doctor on board HMS Salisbury.[1] In a clinical experiment, Lind demonstrated that in sailors afflicted by 'the scurvy', those individuals given citrus fruits benefited from a rapid cure, paving the way to preventative measures.

Scurvy, a disease resulting from vitamin C deficiency, may develop in the setting of malnutrition and malabsorptive states. It is encountered mostly in children, the elderly and those with substance use disorders.[2] Additionally, up to 25% of adults from low socioeconomic backgrounds have suboptimal plasma vitamin C levels, usually reflecting poor diet.[3]

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Relatively rare in otherwise apparently healthy young adults, the diagnosis of scurvy is easily forgotten. Scurvy may be misdiagnosed, generating costly and unnecessary investigations. Identifying patients at risk is helpful, but the key to diagnosis remains recognition of typical physical signs, allowing inexpensive and rapidly effective treatment. ■

References

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