

A patient with a tumour in the breast and extensive haematomas

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CASE REPORT

A 74-year-old woman was admitted to hospital due to extensive haematoma on both legs and swelling of the knees. The painless haematomas had arisen spontaneously. There was no history of trauma, haematemesis or gum bleeding. On admission the patient complained of a dry mouth, burning sensation of the eyes and fatigue for the last two months. Her social history revealed that she lived alone and prepared her own food. She ate mainly white bread without toppings three times a day and porridge. As a supplement for the lack of fruit and vegetables, she had started vitamin B supplements. She did not use any other medications or alcohol. A year before admission a general physician had diagnosed a lump in the right breast. However, due to strong religious considerations, she had refused further medical advice. On physical examination a tired looking woman was seen. Blood pressure was 140/90 mmHg, the pulse was regular at 120 beats/min. A 4 cm large tumour was palpated in the right mamma. The abdomen and both legs showed large skin haemorrhages, up to 15 cm in diameter, enclosed by not sharply defined erythema (*figure 1*). Routine laboratory investigations showed a haemoglobin level of 6.6 mmol/l, otherwise normal electrolytes, kidney function and serum albumin (36 g/l). The prothrombin time (PT), partial thromboplastin time (aPTT) and thrombocyte count were within normal ranges.

Figure 1. Skin haemorrhages of both legs



WHAT IS YOUR DIAGNOSIS?

See page 373 for the answer to this photo quiz.

DIAGNOSIS

Additional determinations of the vitamin status revealed vitamin C and D deficiencies. The vitamin C level was $<5 \mu\text{mol/l}$ ($10\text{--}15 \mu\text{mol/l}$), confirming the clinical diagnosis of scurvy. It took some effort to convince the patient of the necessity for a balanced diet, but a normal intake could be achieved. Following ten days of supplemental vitamin C prescription, an almost full recovery from the haemorrhages was seen (figure 2).

DISCUSSION

The skin is an accessible organ and may provide the internist with major clues to a clinical diagnosis. Haemorrhages, or extravasation of blood in the skin, are often described as purpura. This term simply refers to purple or colouring of the skin. Haemorrhages can be divided on the one hand into small lesions, which do not blanch with pressure, known as petechiae. These pin point lesions, up to 3 mm, are well-known features of capillary and platelet disorders. Larger lesions on the other hand, called ecchymosis, are frequently seen in trauma and clotting factor deficiencies. However, many other diseases may present with (non)-palpable purpura, for instance thromboembolic, immune complex disease and small vessel vasculitis.^{1,2} Vitamin C or ascorbic acid is a necessary cofactor in the hydroxylation of pro-collagen. Reduced collagen formation is associated with capillary fragility, bleeding risk and poor wound healing. Bleeding of the gums and gingivitis are well-known symptoms in this classic disease. Small haemorrhages can merge into a vast haematoma, usually localised at pressure points, such as the buttocks and legs ('saddle' phenomenon). In accordance with a citation of Sydenham centuries ago,³ 'where the scurvy ends, then the dropsy begins', we think that the patient's vitamin B supplements prevented her from developing neuropathy. A more detailed history in our patient revealed that she had chronic diarrhoea too. The patient believed that this complaint was due to various food components, fruits in particular, and had further limited her daily intake. The lump in her breast eventually turned out to be breast cancer.

Figure 2. Recovery of the skin following vitamin C supplementation



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