MASSIVE HAEMATOMA FROM DIGITAL MASSAGE IN AN ANTICOAGULATED PATIENT: A CASE REPORT

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ABSTRACT

We report a rare occurrence of massive subcutaneous haematoma resulting from digital massage in a patient on anticoagulation.

Keywords: anticoagulation, haematoma, digital massage.

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INTRODUCTION

Bleeding, both major and minor, is the most important complication of anticoagulation. Fatal or non fatal major bleeding develops in approximately 1% and 10% of anticoagulated patients respectively[1,2]. We report a case of massive subcutaneous haematoma following digital massage in a patient who was on anticoagulation.

CASE REPORT

A 62-year-old Chinese male was admitted for an acute swelling over his left back. He had severe aortic regurgitation requiring aortic valve replacement 5 years previously. On maintenance warfarin, 5 mg daily, his international normalised ratio (INR) was between 2.5 and 3.5. Two days prior to admission, he developed symptoms of upper respiratory tract infection and vague muscle aches over his left back. His wife applied digital massage and rubbed "Oil of Wintergreen" (topical salicylates) to help relieve the pain. Two days later, he noticed a large swelling over the area massaged, and felt postural giddiness.

Clinical examination showed a large haematoma (20 cm x 12 cm) over his left back (Fig 1). He was pale and had orthostatic hypotension (blood pressure 140/80 mmHg supine; 100/60 mmHg standing). Systemic examination was otherwise normal, in particular, rectal examination showed no melena. His haemoglobin was 8.9 g/dl; it was 10.6 g/dl previously. The INR was 3.67, and platelet count was normal. Platelet function tests and serum salicylate level were not done.

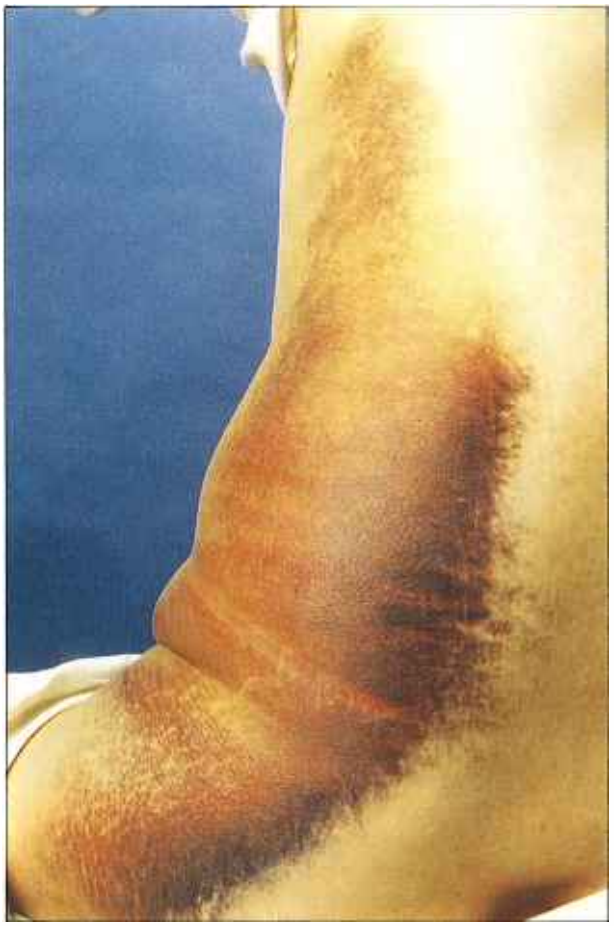
The warfarin dosage was reduced and blood was transfused. His haematoma gradually resolved over one to two weeks.

DISCUSSION

Patients on anticoagulation have a higher risk of bleeding complications[1]. The risk of bleeding is related to the intensity of anticoagulation or the presence of local tissue abnormalities[3]. The possible risk factors in our patient were: over anticoagulation, use of topical salicylates (Oil of Wintergreen), and blunt trauma from digital massage.

The haematoma was probably not due to over anticoagulation as the INR was within the therapeutic range. Topical salicylates can affect the prothrombin time in patients on warfarin, resulting in bleeding complications[4]. Various mechanisms for haemorrhage have been proposed in such patients – aspirin's effect on platelet function increases risk of haemorrhage[5]; high salicylate levels decrease hepatic synthesis of vitamin K – dependent coagulation factors[6]; and the displacement of protein bound warfarin by salicylates[5,7]. Platelet dysfunction resulting from topical absorption of salicylate in this patient cannot be excluded. Warfarin anticoagulation, salicylate-induced platelet dysfunction and minor trauma were possible causes contributing to the haematoma in this patient.

Fig 1 – The large haematoma over the left back extends from the axilla (top) to the hip (bottom).



Massage, a traditional remedy for aches and pains, is a common practice amongst Asians. It is interesting that blunt trauma exerted during such a seemingly innocuous activity can result in haemodynamically significant bleeding in a patient on anticoagulation. We recommend that patients on anticoagulation

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be made aware of this potential risk, in addition to the usual counselling regarding risks and precautions during anticoagulation.

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