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PHOTO QUIZ

An 86-year-old man with a unilateral pectoral swelling

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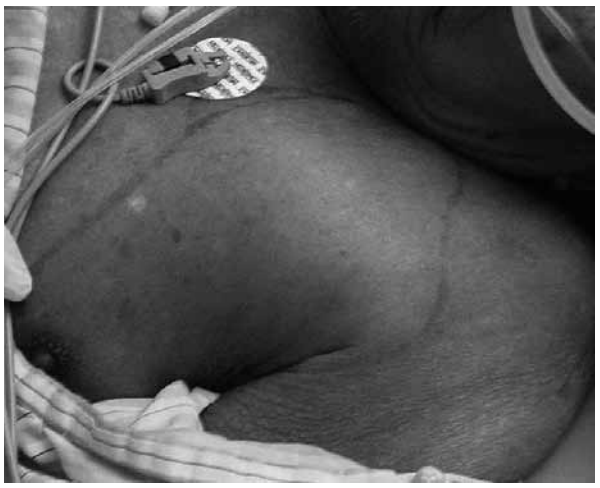
CASE REPORT

An 86-year-old bedridden man with the history of ischaemic stroke and chronic kidney disease (CKD stage 5, creatinine 327.9 µmol/l, normal <91.5 µmol/l) was admitted for a suspected non-ST-elevation myocardial infarction (NSTEMI) with initial presentation of a two-day history of dyspnoea. His blood pressure was 133/85 mmHg, pulse rate 99 beats/min, and respiratory rate 25 breaths/min. An electrocardiogram revealed diffuse T-wave inversion accompanied by elevated cardiac enzymes (creatine phosphate 603 U/l, normal 39 to 308; creatine kinase-myocardial band 38 U/l, normal 7 to 25; troponin I 1.5 µg/l, normal <0.5). The patient was immediately treated with clopidogrel (300 mg loading dose, followed by 75 mg once daily) and aspirin (300 mg loading dose, followed by 100 mg per day) with continuous heparinisation (5000 units loading dose, followed by 600 units every hour) with target aPTT 1.5~2.5 times higher than control. Meanwhile, inhalation bronchodilator therapy was delivered to relieve the dyspnoea and wheezing, but provoked several bouts of violent coughing. Sixteen hours after heparinisation, an 8 x 7 cm^2 bulging mass with mild bruising at the left upper chest wall developed (*figure 1*).

Figure 1. *A large pectoral bulging mass*



WHAT IS YOUR DIAGNOSIS?

See page 186 for the answer to this photo quiz.

ANSWER TO PHOTO QUIZ (PAGE 183)

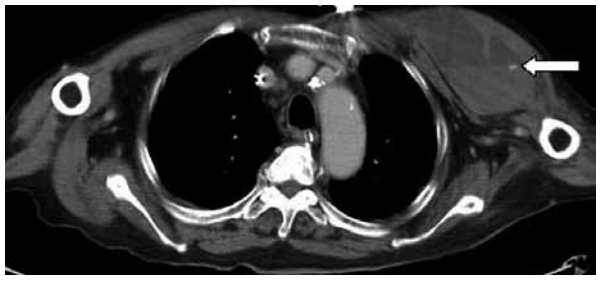
AN 86-YEAR-OLD MAN WITH A UNILATERAL PECTORAL SWELLING

DIAGNOSIS

The differential diagnoses of a bulging pectoral swelling include subpectoral abscess, pectoral major tendon rupture, post-pectoral implant procedures, post-pacemaker implantation, and pectoral muscle rupture with haematoma. In our patient, transverse ultrasound of the left upper chest wall showed a non-organised haematoma measuring approximately 7.2 x 6.2 x 4.2 cm in the left pectoralis major muscle with a fluid-fluid level. Axial contrast-enhanced computed tomography (CT) revealed a left pectoralis major haematoma with an extravasation of contrast medium (*figure 2*, arrow) which limited the use of antiplatelet agents and heparinisation. Desmopressin (4 µg, subcutaneously every 12 hours), two units of packed red blood cells, and three units of fresh frozen plasma were then given and extension of the haematoma gradually ceased. He was discharged in a stable condition one week later. Triple-vessel disease was confirmed on the following coronary stenting.

Pectoralis muscle haematoma (PMH) is rare during heparinisation and has only been reported in two cases previously.[1,2] In our case, an acquired bleeding tendency from uraemia, antiplatelet agents, and anticoagulation predisposed to spontaneous bleeding. Besides, violent coughing induced vigorous muscular contractions and the haematoma secondarily resulted from partial pectoralis major rupture, which was also related to old age and uraemic status.[3] Treatment for the PMH is typically non-surgical, as in our patient. Another point highlighted here is the safety concerns about the use of guideline-recommended interventions for non-ST-segment elevation acute coronary syndrome in an advanced CKD population.[4]

Figure 2. *Axial contrast-enhanced computed tomography (CT) showed a left pectoralis major haematoma with an extravasation of contrast medium indicating active bleeding*



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