occurrence of catheter-induced CAS. The latter often happens when the tip of the catheter enters the right coronary artery at an angle producing proximal vessel tenting. Multiple spasms in one single coronary artery, as in our patient, are rare and can mimic fixed coronary stenosis. These often easily reversible spasms can be easily misinterpreted as a fixed lesion and may lead to acute coronary syndromes.

It should also be kept in mind that catheter-induced CAS can occur in multiple sites, as in our case, away of the catheter tip. Routine use of intracoronary vasodilators in patients with significant lesions in coronary arteries can help to avoid misinterpreting catheter-induced CAS as an atherosclerotic lesion.

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## Spontaneous pectoral hematoma secondary to enoxaparin for the treatment of deep venous thrombosis in an elderly man

Derin ven trombozu tedavisi için kullanılan enoksaparine bağlı spontan pektoral hematom

An 81-year-old man presented to emergency department with the complaint of calf pain. Venous Doppler ultrasound revealed deep vein thrombosis (DVT). Low molecular weight heparin (enoxaparin) 1 mg/kg twice daily was ordered. A large pectoral ecchymosis with rapid and painful enlargement extending to the contralateral site of the chest and abdominal wall was observed on the second day (Fig. 1). Computed tomography of the thorax showed a 25x15x10 cm subpectoral hematoma



Figure 1. Pectoral hematoma with extensive ecchymosis extending to entire abdomen (A: Frontal view, B: Oblique view)

on the left side (Fig. 2). Hematoma was evacuated. Acute DVT treatment was started with intravenous unfractionated heparin 20,000 Units/24 hours as continuous intravenous infusion as soon as the bleeding was controlled. He was discharged uneventfully on the 7<sup>th</sup> postoperative day with compressive bandages to lower extremity, advises for mobilization and oral anticoagulant for long-term therapy.

Early drainage was preferred as surgical treatment to reduce the progressive pain and to control hemorrhage, which was thought to be the appropriate management, because the freshly bleeding vessels are more likely to be controlled than that from incomplete chronic hematoma with local inflammation. The incomplete haemostatic plugs may have interrupted the access of activated factor VII to the sites of vascular injury where tissue factor appears and platelets adhere.

The extended use of enoxaparin for the treatment of deep venous thrombosis requires the physicians to be vigilant of such rare complication. We must keep in mind that, major hemorrhage may be more likely in elderly patients with chronic liver disease or impaired renal function and, in patients receiving warfarin, aspirin, proton pump inhibitors or prolonged enoxaparin therapy.

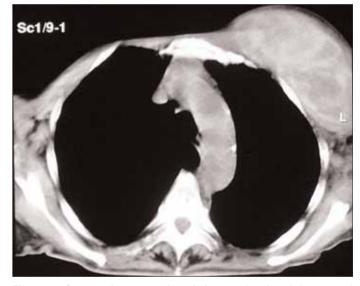


Figure 2. Computed tomography of thorax showing left pectoral hematoma

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