hyperhomocysteinemia, and other rheumatological diseases. Antithrombin III was interestingly detected as 55% of the reference level. Antithrombin concentrates were also initiated after the A3-D diagnosis. After 2 weeks, TEE was repeated, but the giant thrombi persisted; therefore, the option of surgery was offered to the patient. However, the patient refused the operation because of high risk under informed consent, and he was discharged from our hospital under warfarin, ticagrelor, and acetylsalicylic acid therapy.

**Video 1.** TTE video indicating left ventricular apical thrombus and giant left atrial thrombus.

**Video 2.** TEE video showing giant left atrial thrombus.

**Video 3.** TEE video showing thrombus in the left atrial appendage and its x-plane reflections.

**Video 4.** TEE images showing left atrial thrombus and right atrial thrombus originating from the superior vena cava.

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Pectoral muscle hematoma: A rare complication of transradial cardiac catheterization

Transradial access has much fewer complications when compared to transfemoral access, but detection and management of these complications are not well defined. We presented two unusual cases of pectoral muscle hematoma after transradial coronary angioplasty.

The first case was a male patient who had undergone angiography through the left radial artery. Advancing to the aortic arch through the axillary artery was challenging and was performed by changing to 0.035 inch stiffer hydrophilic wire. The patient complained of a dull left-sided chest pain after angiography; his ECG revealed no sign of ischemia. Left pectoral muscle was swollen and tense on palpation (Fig. 1a). Thorax CT revealed a large hematoma in the left pectoral muscle (Fig. 1b). No extravasation was detected in control subclavian and axillary angiography (Fig. 2). The second case was a male patient who had undergone angiography through the right radial artery. Passing
through the axillary artery to the aortic arch was achieved by changing to 0.035 inch stiffer hydrophilic wire. The patient complained of a dull right-sided chest pain 2 h after the procedure. There was no coronary ischemia visible on ECG, but ecchymotic tender swelling was noted on the right pectoral region (Fig. 3a). Thorax CT revealed a right pectoral muscle hematoma (Fig. 3b). His axillary and subclavian angiography revealed no extravasation (Fig. 4). Both patients were followed up with cold press and firm bandage over the hematoma.

Tortuosity at the arterial route and difficulty in accessing aortic arch are factors that pursue us for further wire and catheter manipulations during transradial angiography. Manipulations should be done gently, slowly, and always under fluoroscopy for decreasing the risk of branch perforation.

A 57-year-old man with a diagnosis of acute anterior myocardial infarction was admitted to the catheterization laboratory for primary percutaneous coronary intervention. Left anterior descending artery (LADa) was seen subtotally occluded immediately after the first diagonal artery (D1a) branching with TIMI 1 distal flow on coronary angiogram (Fig. 1a–c, Video 1–3). LADa and D1a were passed by a soft guidewire. After predilation of the culprit lesion, guidewire-induced coronary perforation was noticed at the distal segment of D1a (Fig. 1d, Video 4). After 20 min inflation of balloon (Fig. 1e, f) at the perforation segment and culprit lesion treated by stent implantation, extravasation was found to be diminished (Fig. 1g, h, Video 5, 6). Echocardiography revealed minimal pericardial effusion without tamponade sign. On the development of clinical and echocardiographic tamponade signs at the first hour, fluoros-