An uncommon cause of radial access failure

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DESCRIPTION
An 83-year-old woman with a suspected coronary atherosclerotic disease in the setting of severe left ventricular dysfunction underwent a coronary angiography at our institution. Prior to catheterisation, Allen test was performed, which showed normal bilateral circulation. Using a 5 Fr catheter sheath through the right radial artery, we found a guide wire blockage at the axillary artery level. Recanalisation of prior arterial occlusion with collateral circulation was found during the angiography (figure 1 and video 1). Deeper background investigations were performed discovering a right humerus neck fracture that occurred 10 years ago and was conservatively treated. Radial access is a well-known arterial access to perform coronary catheterisation in which the main cause of access failure is radial spasm. In this case, we show an extremely rare cause of access failure secondary to a traumatic injury of the axillary artery. Collateral flow development allowed distal perfusion of the subsequent arteries, masking such injury during the Allen test. In our opinion, anamnesis is always an important tool to avoid any medical complication and specifically trauma injuries must always be considered. We recommend performing an angiography in the case of any difficulty during catheterisation. It is important to avoid any damage in such an injured artery, otherwise it would lead to devastating consequences.

Video 1 Angiography of the radial artery.

Learning points
- Prior anamnesis is vital in order to avoid artery access complications.
- Allen test does not discard artery injuries with collateral flow prior to the radial artery.
- Axillary artery injury is a possible cause to radial access failure.

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