

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



Video 1 Angiography of the radial artery.



Figure 1 Radial artery blockage and collateral flow.

in such an injured artery, otherwise it would lead to devastating consequences.

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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Competing interests None.

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REFERENCES

- 1 Bernat I, Horak D, Stasek J, *et al*. ST elevation myocardial infarction treated by RADIAL or femoral approach in a multicenter randomized clinical trial: the STEMI-RADIAL trial. *J Am Coll Cardiol* Published Online First: 6 Nov 2013. doi:10.1016/j.jacc.2013.08.1651
- 2 Byrd RG, Byrd RP Jr, Roy TM. Axillary artery injuries after proximal fracture of the humerus. *Am J Emerg Med* 1998;16:154-6.



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