Radial artery pseudoaneurysm: rare complication of a frequent procedure

Jose Paxiuta,¹ Maria João Lobão,¹ Liliana Carvalho²

¹Hospital de Cascais, Cascais, Portugal ²Hospital de Egas Moniz,

Correspondence to Dr Jose Paxiuta, josepaxiuta@gmail.com

CHLO, Lisboa, Portugal

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DESCRIPTION

The pseudoaneurysms of the radial artery are uncommon, generally secondary to trauma or invasive procedures such as arterial catheterisation (0.09%).^{1 2} Predisposing factors are advanced age, longer duration of catheterisation, coagulation disorders or use of anticoagulants/antiplatelet agents. A woman of 85 years, with history of ischaemic heart failure, chronic atrial fibrillation on anticoagulation, with labile International Normalisation Ratio, hypertension, peripheral artery disease and dyslipidaemia, was admitted in the context of acute pulmonary oedema secondary to hypertension, requiring hospitalisation in intermediate care unit and continuous arterial catheterisation. Seventeen days after removal of arterial line, a palpable pulsatile mass, soft, painless and without other inflammation signs was found at the site of palpation of the right radial artery, where previously the arterial catheter had been inserted (figures 1A, B). Further investigation by Doppler ultrasound (figure 1C) identified a pseudoaneurysm of the radial artery, >2 cm in diameter, which was lap-permeable and non-thrombosed . No other complications, such as neurapraxia, compartment syndrome, rupture or haemorrhage were found until 38 days after



Figure 2 Wrist after surgical intervention.

diagnosis, when the patient was submitted to surgical removal of the false aneurysm and direct arteriorrhaphy, uneventfully (figure 2). To date, the patient is asymptomatic, with no evidence of any complication.





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Figure 1 (A and B) Pulsatile mass, soft, painless and without other inflammation signs at the site of palpation of the right radial artery, where previously have been inserted the arterial catheter. (C) Ultrasound showing the pseudoaneurysm of the radial artery.

Learning points

- Illustrates a rare complication of a procedure commonly performed by the internist.
- Recalls the possibility of late development of pseudoaneurysm after arterial catheterisation.

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 $\label{eq:contributors} \begin{array}{l} \mbox{DP} \mbox{ was responsible for the elaboration of the} \\ \mbox{manuscript with collaboration of MJL. LC reviewed the paper.} \end{array}$

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