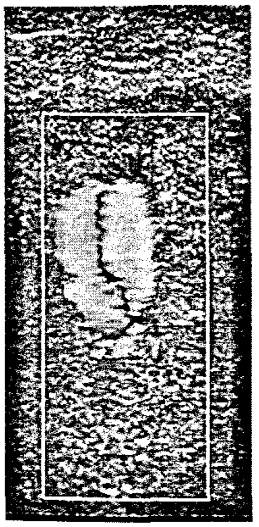
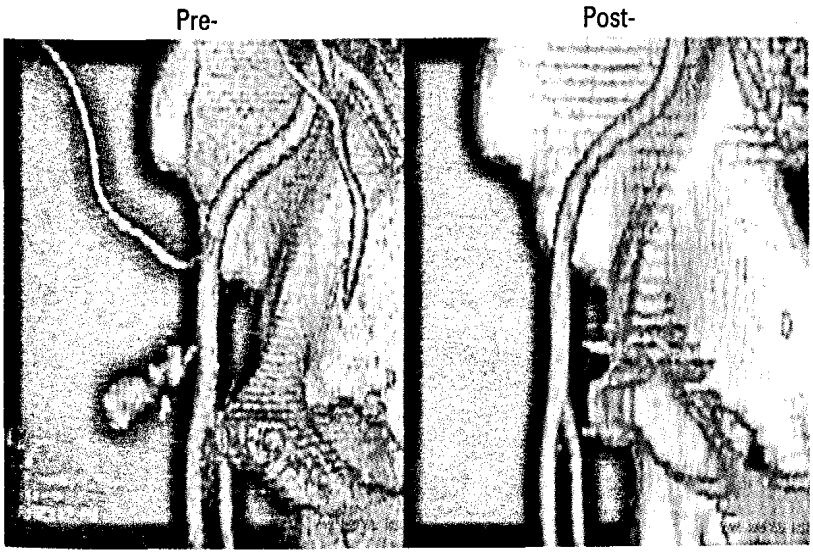
Three dimensional reconstruction of femoral pseudoaneurysm using contrast enhanced axial CT angiography



A 45 year old man was admitted for an electrophysiological procedure using a retrograde aortic approach via an 8 French right femoral artery sheath. The patient received low molecule weight heparin after the procedure. A large pulsatile mass with a diffuse haematoma and bruit developed in the right groin two days after the procedure. Duplex ultrasound scanning (ATL HDI 3000, 4–7 MHz probe) demonstrated a large cavity (10 × 18 cm) with arterial turbulent flow (left). However, the origin of the false aneurysm from the artery could not be clearly identified. Contrast enhanced axial computed tomographic (CT) angiography with three dimensional reconstruction (Lightspeed CT scanner and Advantage Windows, Volume Rendering, General Electric, USA) was performed and confirmed a multiple saccular false aneurysm arising from the common femoral artery (below, left panel). The neck of the false aneurysm was localised by the CT angiogram and manual compression was applied at that site. After 20 minutes of compression, the pulsatility and the bruit from the false aneurysm ceased. A repeat CT angiogram confirmed the obliteration of the false aneurysm (below, right panel). The patient was discharged from the hospital the following day and only a small resolving haematoma was detected during follow up.



As this case illustrates, the presence of a multiple saccular false aneurysm may lead to difficulties in identifying its origin by duplex ultrasound scanning. CT angiogram is useful in such cases for diagnosing and guiding treatment of the iatrogenic pseudoaneurysm after femoral artery catheterisation.

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