Case report: The Sinister Swelling: Wrist Abscess or Radial Artery Pseudoaneurysm?

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INTRODUCTION:

Radial artery pseudoaneurysm is a rare complication (0.09%) of cardiac catheterization¹. We present a case of pseudoaneurysm that mimics clinic findings of an abscess.

REPORT:

A 78 years old lady with underlying non-ST elevation myocardial infarction presented to us with a painful right wrist swelling 5 days after a cardiac angiogram.

Clinical examination revealed a 4cm x 3cm, warm, painful, erythematous, fluctuant, non-pulsatile swelling over radial side of volar aspect of right wrist associated with a punctum. Range of motion and neurovascular status of wrist was intact.

Plain radiographs of wrist showed an increase soft tissue shadow. Blood investigations were not suggestive of infection

USG Doppler of right wrist was done, showing an outpouching from radial artery measuring 1.7cm x 2.7 cm x 3.6cm with a "yin yang" turbulent flow, confirming the diagnosis as a radial artery pseudoaneurysm.

Compression bandage was applied and the swelling gradually subsided when examined on subsequent follow up.



Fig 1: Swelling over radial side of volar aspect of right wrist



Fig 2:Ultrasound Doppler showing "yinyang" sign due to turbulence of blood flow

Pseudoaneurysms occurs when there is injury or a tear through the layers of the arterial wall usually after arterial cannulation or cardiac catheterization. A pseudoaneurysm wall is mostly fibrous capsule, making it more susceptible to rupture².

Patients present with a tender and erythematous swelling, mimicking an abscess. Pseudoaneurysms are often pulsatile and associated with thrills. However, these distinctive features were not present for this patient¹.

USG Dopppler is the imaging of choice to accurately diagnose pseudoaneurysm. It is managed conservatively by direct compression of the artery¹.

CONCLUSION:

Pseudoaneurysms, though rare can present as a non-pulsatile wrist swelling. Clinical findings should be corroborated with appropriate imaging modalities.

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