

Introduction

Vague swelling at proximal forearm is commonly presented to emergency department as soft tissue injury, abscess or ganglion. In this case, we intended to report a case of proximal forearm swelling that turns out to be ulnar artery pseudoaneurysm. Ulnar artery pseudoaneurysm is a rare condition that usually occurred over the distal segment after a penetrating trauma or hospital related procedure such as blood taking or cannula insertion.^[1]

Case Report

A 30-year-old lady with underlying chronic rheumatic heart disease with aortic valve replacement on anticoagulant presented with right proximal forearm discomfort for one week. It was associated with vague swelling distal to her elbow joint. She denied fever, history of trauma, injection or blood taking over the region. Physical examination revealed vague swelling about 8x5cm near elbow joint. It was a pulsating soft mass, warm and mild tender upon palpation. Bedside ultrasound showed dilatation of proximal ulnar artery about 2.5x2.5cm with false lumen and turbulent flow. CT Angiography of right upper extremity showed a saccular aneurysm seen at the proximal/mid right ulnar artery measuring 2.3(AP) x 2.5(W) cm.



Figure 1: Proximal part of patient's right forearm showed vague swelling

Discussion



Figure 2: Bedside ultrasonography showed characteristic 'yin-yang' sign of pseudoaneurysm

Pseudoaneurysm, also known as false aneurysm is a dilatation of an artery that is due to the disruption of one or more layers of its walls.^[2] Diagnosis of pseudoaneurysm is commonly missed in medical practice. There were more than 100 case reports had been done regarding the true aneurysm or pseudoaneurysm of upper extremities. Only half of these cases in literature were diagnosed accurately pre-imaging or pre-operative period.^[3] Even though computed tomography (CT) angiography and magnetic resonance angiography are the gold standard diagnostic modalities, doppler ultrasonography can be the first-line diagnostic instrument since it is non-invasive, and easily available in emergency setting.^[4] The characteristic 'yin-yang' sign may be seen adjacent to ulnar artery as a result of internal turbulent blood flow from the ultrasonography.^[5] Ulnar artery pseudoaneurysm can have potentially severe consequences that includes rupture, thrombosis, distal embolization and digital gangrene, infection or compressive mass effect. These complications is not uncommon and some were serious enough that literature supports their removal immediately upon discovery.^[6]

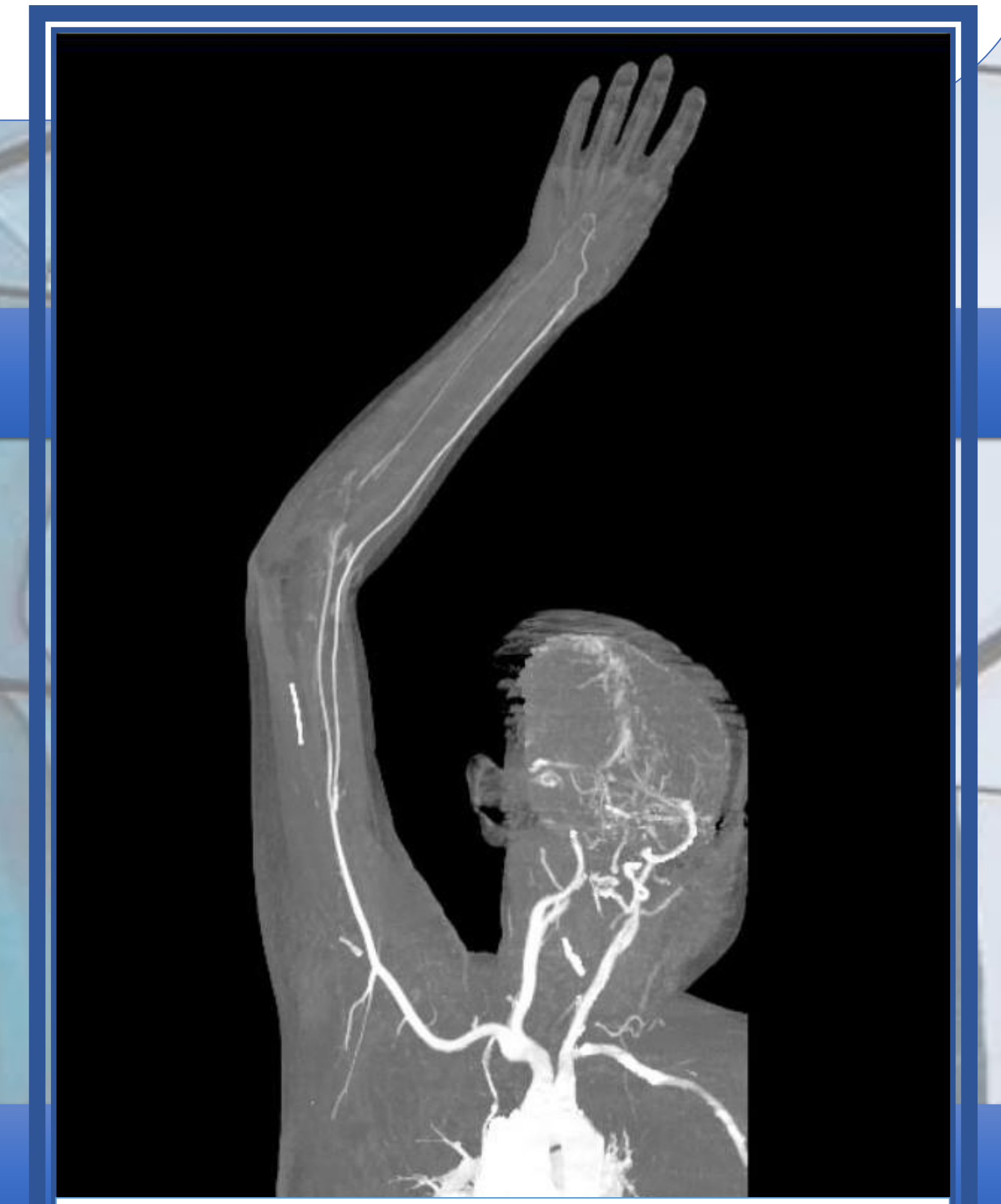


Figure 3: CT angiography of right upper extremity

Conclusion

Proximal ulnar artery pseudoaneurysm is one of the rare cases presented as swelling over the proximal forearm. It is always mistakenly diagnosed as something more trivial such as abscess, lipoma, cyst and tumors. Failure to consider the diagnosis will lead to serious consequences, thus early diagnosis is critical in preventing long-term morbidity. One of the simplest modalities for early detection is by using bedside doppler ultrasonography which is easily available in emergency department. Early detection will lead to early referral as surgery remains the mainstay of treatment.

References

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