

The role of point of care ultrasound in the diagnosis of femoral artery pseudoaneurysms in the emergency department: A case report

Ziad Al-Ani , Caitriona Considine , Glasgow Royal Infirmary, Glasgow, UK

INTRODUCTION

The femoral artery pseudoaneurysm is a known serious complication of intravenous drug abuse. A missed diagnosis may have a devastating outcome as a result of life-threatening haemorrhage in the event of rupture. The use of point of care ultrasound in the emergency department can help to minimise this risk by providing early bedside diagnosis.

CASE REPORT

We present a case report of 54 years old male intravenous heroin user who was brought to the emergency department with a suspected right femoral shaft fracture following a fall at home. He was unable to weight-bear for three days. Upon arrival to hospital, his venous blood gas showed a haemoglobin of 65g/L. He had a large non-pulsatile swelling over his right thigh with surrounding skin erythema. The swelling extended down to his right knee. The patient was taken to the resuscitation area where a bedside ultrasound scan was performed before plain film imaging.

A bedside ultrasound scan of the right groin area revealed a large pseudoaneurysm over the femoral artery region with a characteristic Yin-Yang sign when colour doppler flow was applied. The patient was taken urgently to theatre for successful arterial ligation.

CONCLUSION

The point of care ultrasound is a very useful, rapid and reliable non-invasive bedside tool that can be used in the emergency department to detect pseudoaneurysms in IVDU patients when there is a high clinical suspicion. In this particular case, it helped to provide a prompt, lifesaving diagnosis and shifted patient care in the right direction.

BRIEF DESCRIPTION OF ULTRASOUND IMAGES AND VIDEO

Video:

Transverse view of the right superficial femoral artery demonstrating a large pseudoaneurysm with turbulent forward and backward flow.

Images:

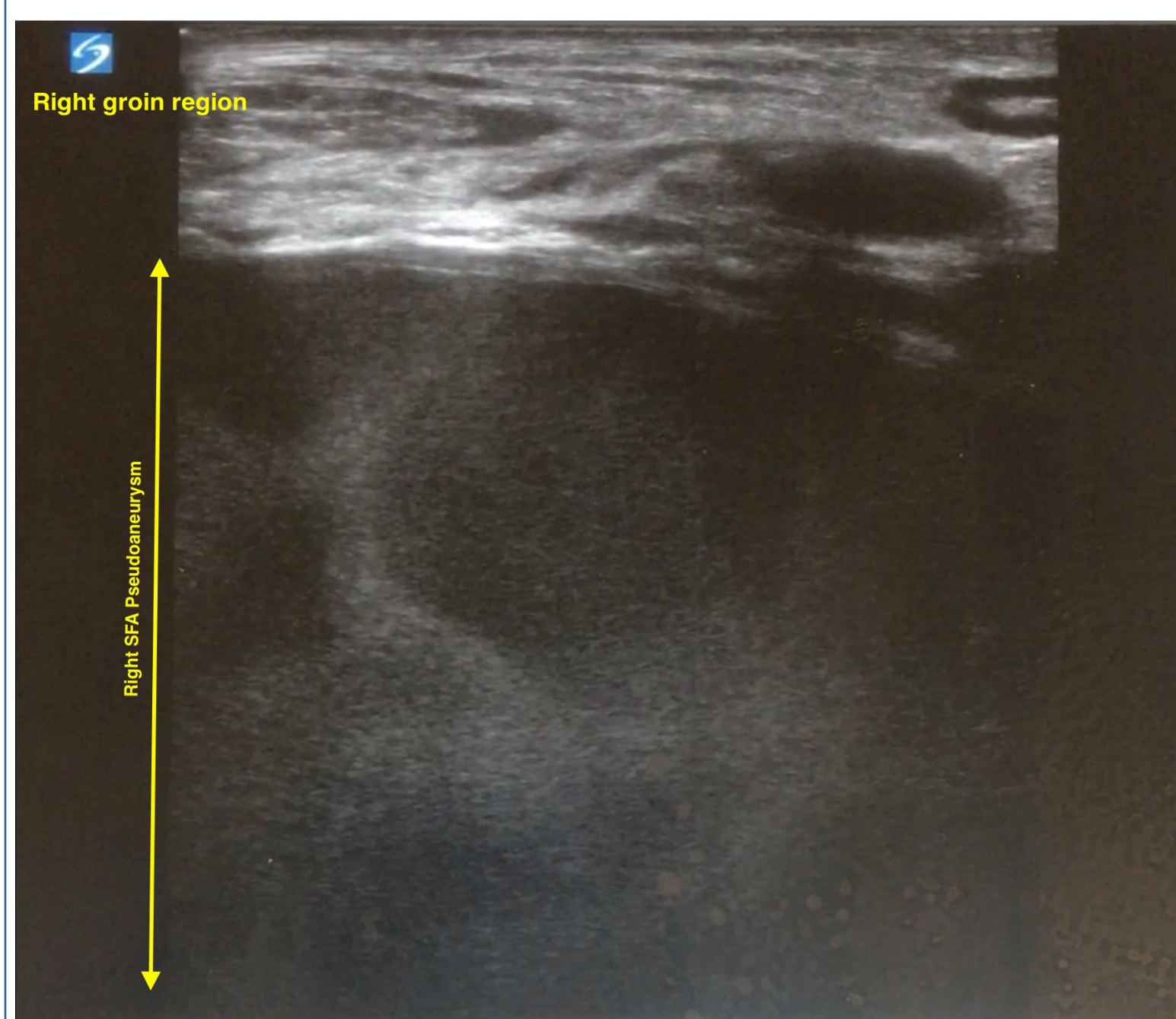


Image 1: Large pseudoaneurysm of the right superficial femoral artery.

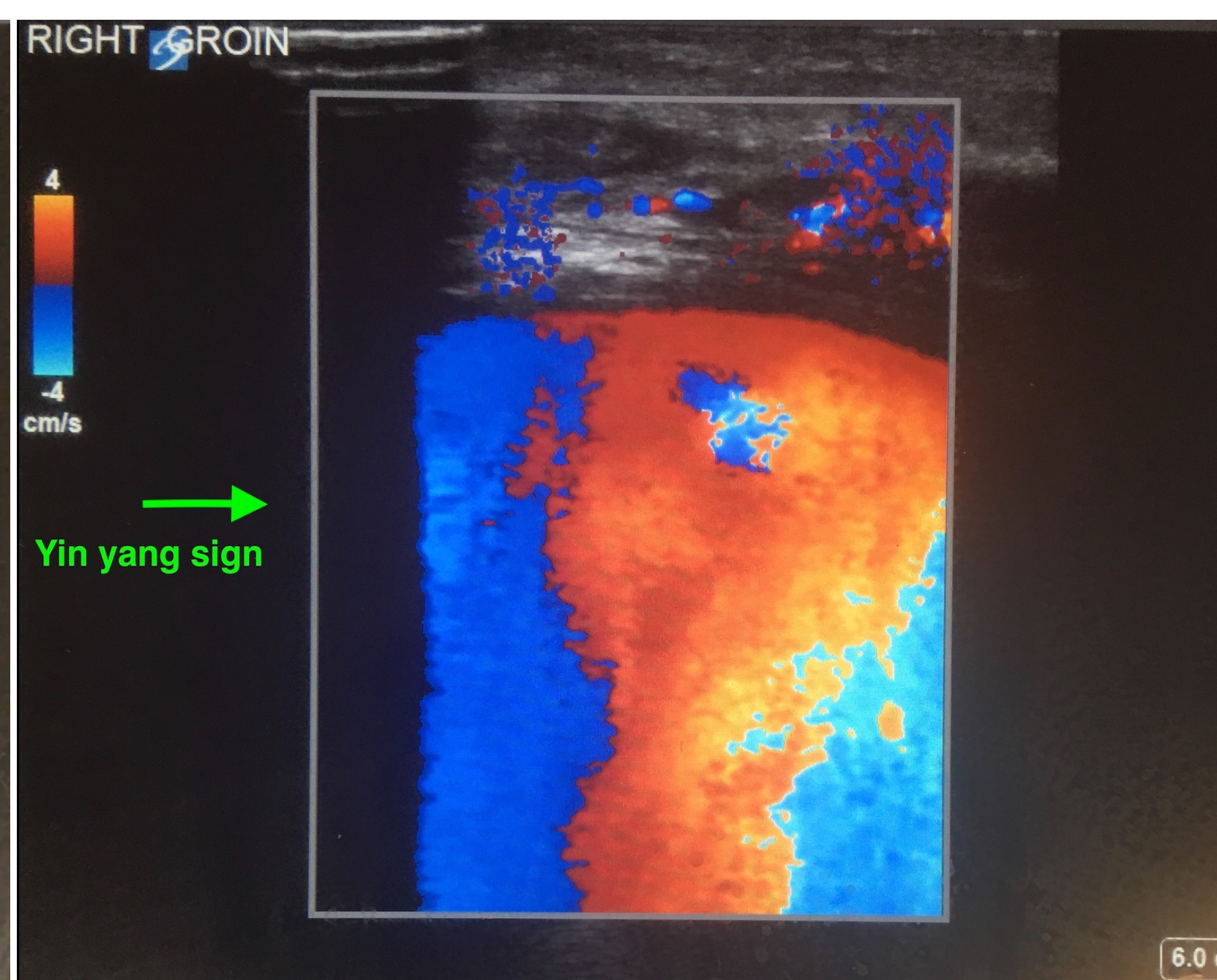


Image 2: Colour doppler flow of the right superficial femoral artery reveals Ying Yang sign.

Conflicts of interests

The authors have nothing to declare.