

## Case Study 1

Sean is a 52 year old male who reported pain in his right upper arm following being pulled from the water abruptly while water skiing. He noticed bruising develop in his right cubital fossa and experienced pain with putting his right arm into internal rotation. He also had pain abducting his right arm above 90 degrees. His GP sent him for investigations and treatment, thinking he had a tear to his distal biceps brachii muscle. I examined him 1 week after the accident . He had no palpation tenderness in his cubital fossa and diagnostic ultrasound revealed a normal distal biceps brachii tendon (see Figure 1).

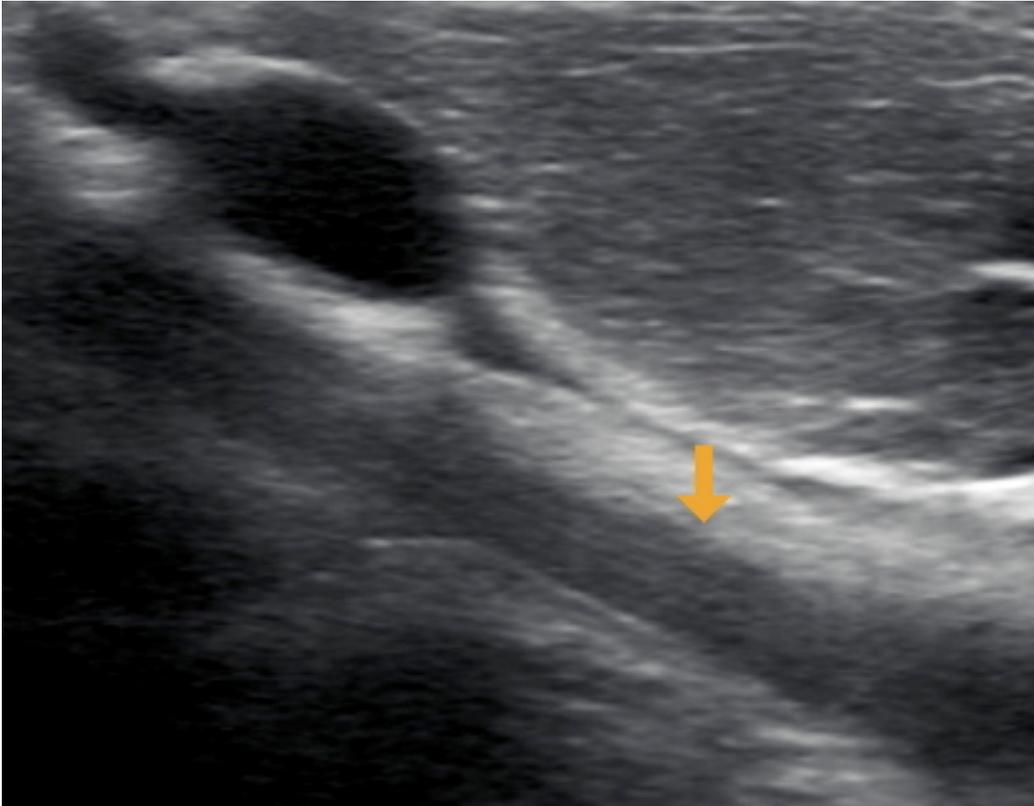


Figure 1 - Normal biceps brachii tendon in longitudinal view (see yellow arrow).

He had tenderness of the right upper arm along the right axillary line. Ultrasound images of the upper right arm are shown in Figures 2 & 3.

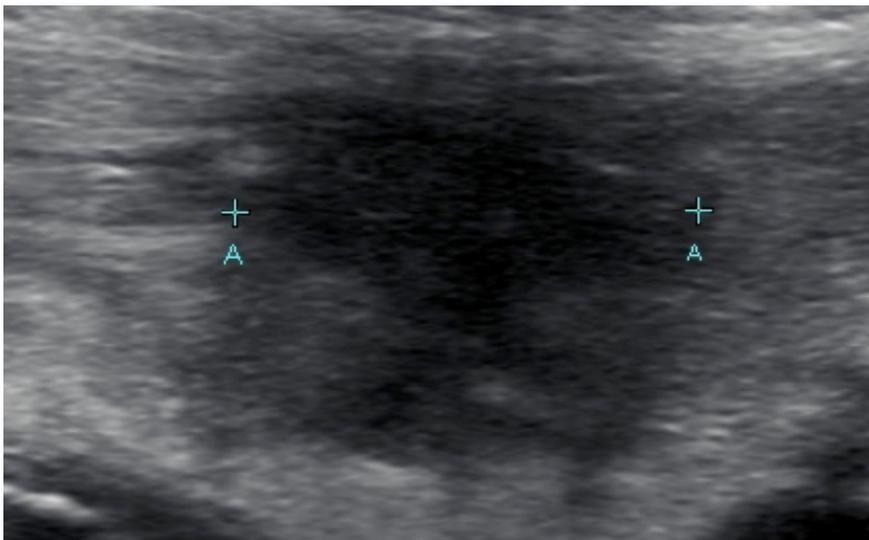


Figure 2 - Irregular haematoma showing discontinuity of the sternal head of the pectoralis major muscle.

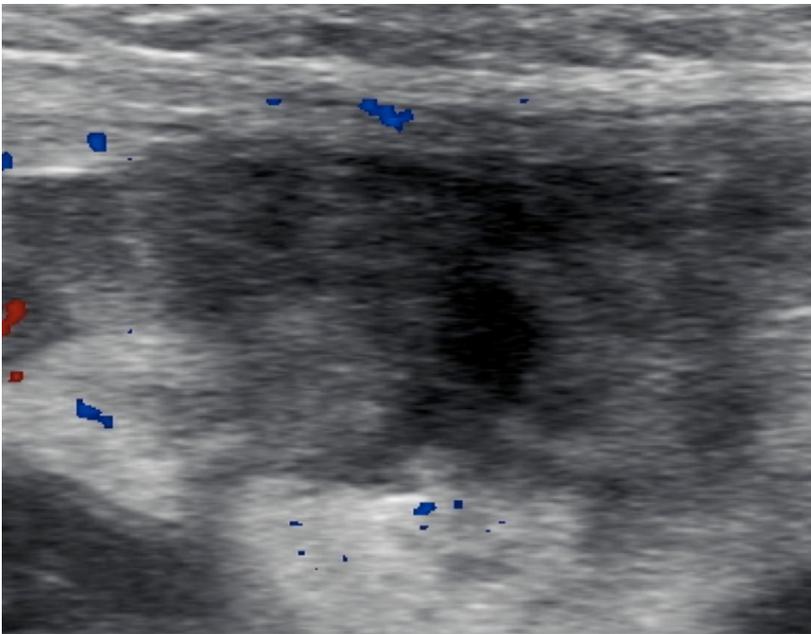


Figure 3 - Colour doppler image of the pectoralis major tear. Notice lack of blood flow within haematoma.

The pectoralis major fibres were followed on ultrasound to reveal a normal pectoralis major tendon. The diagnosis was then made that Sean had a Grade II tear of the musculotendinosis junction of the right sternal head of the pectoralis major. An ultrasound of the subdeltoid region revealed a normal rotator cuff but a thickened subacromial-subdeltoid bursa (see Figure 4).

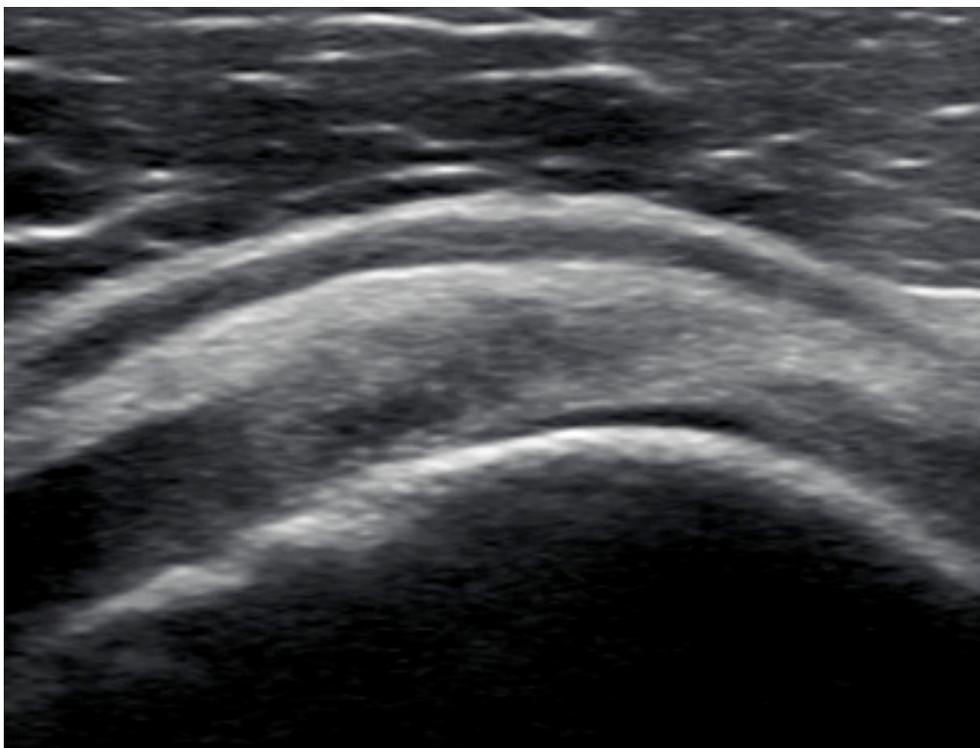


Figure 4 - Transverse ultrasound of the subdeltoid space. Notice the thickened subacromial subdeltoid bursa (dark rim overlying bright supraspinatus tendon)

In addition to the tear, Sean had subacromial-subdeltoid bursitis. Sean was treated with antiinflammatory medication for 5 days to help settle his pain. Given the ultrasound revealed no tendinous tear, no surgical intervention was required. Instead he was advised to rest, avoiding any activity provoking pain. He was gradually progressed onto a stretching and strengthening rehabilitation program.