SHOULDER CASE STUDY

Chronic instability
37yr old gardener

Introduction:

- Peter is a 37 year old gardener.
- He goes to the gym twice per week, swims and enjoys recreational golf.
- He presents with a 12 month history of deep aching pain and feeling of instability, especially when lifting weights, without a history of specific trauma. He describes intense pain with certain movements and vague aching pain at other times.
- On examination he has a painful apprehension test at 60, 90 and 120 degrees and shows no objective signs of instability or hyperlaxity.

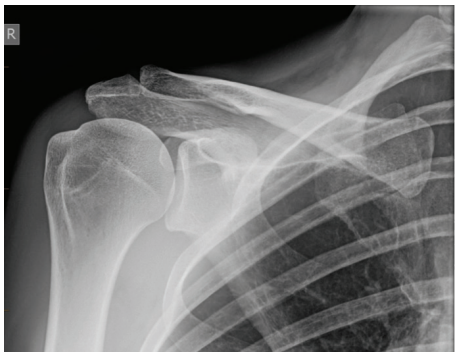

Figure 1: X-ray scans

What are the possible causes of Peter's pain?

Possible causes are many, and include a labral tear or rotator cuff pathology and even AC arthropathy, however the diagnosis is not clear with the current information.

Are there any specific questions you would ask in the history?

It is important to know about any history of recalled trauma, a previous dislocation event, and a review of activities that cause symptoms of pain and instability. It can be difficult to determine a diagnosis in cases with the symptoms described because of the large number of causes of vague shoulder pain and discomfort.

What specific physical examination findings would you look for?

With shoulder injuries it is important to assess range of movement, strength and in this case certain movements may aggravate symptoms and provide a pointer to the diagnosis. Specific passive and resisted movement test can narrow down the anatomical source of the symptoms.

What investigations would you consider?

There may be a role for x-ray and MRI.

What are the advantages and disadvantages of the different imaging modalities in this case?

X-ray shows bony detail well and can be used to check areas such as the AC joint, acromion and sub-acromial space. However, bony trauma is not suspected in this case. Ultrasound is probably less useful in this case as the symptoms are not specifically related to a painful arc for which ultrasound can be very useful. MRI allows for excellent assessment of all shoulder structures including the bones and soft tissues. Labral and chondral assessment would be very important in this case.

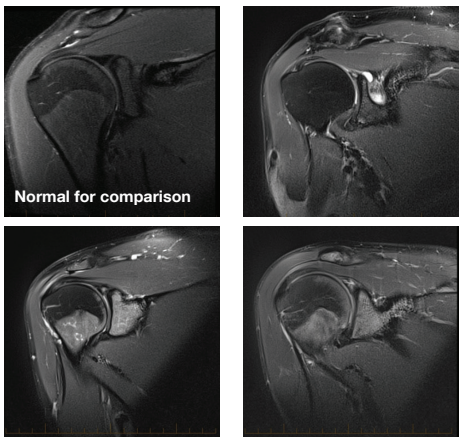

Figure 2: MRI scans

What does the x-ray show? See Figure 1

The AC joint is normal. There is no other x-ray abnormality.

What does the MRI show? See Figure 2

The superior labrum is normally a black triangular structure, however in this case there is a line of high signal through it, consistent with a tear. ?cyst

What are the options and principles of management for superior labral/SLAP tear?

Not all radiologically diagnosed tears will require surgery. Surgical options for superior labral/SLAP tears depend on many factors including age, severity of symptoms and expected outcome. Furthermore there are a number of "types" of SLAP tear for which there are different surgical options including debridement and repair/re-attachment.

A well devised post-surgical exercise programme is very important to reinstate strength and range of motion.