

Interactive Hand Clinics Number 3: Ulnar side wrist pain

D Power

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Abstract

INSTRUCTIONS

The author presents a series of self assessment cases in hand surgery that demonstrate the many pathologies presenting to our tertiary referral hand unit. This case discusses the investigation, differential diagnosis and management of a patient with ulnar side wrist pain.

CASE REPORT

A 42 year old right hand dominant gardener presented to our unit with a 2 year history of wrist pain following a simple fall on his out-stretched right hand. He had continued to work despite the pain but in the last 3 months the intensity had increased. He also described problems with aching in the wrist after a heavy day at work and occasional sleep disturbance.

On direct questioning he described difficulty with opening stiff door handles, lifting a kettle and driving.

Examination revealed no significant swelling. Forearm rotation was full but there was pain at the extremes of rotation. DRUJ ballottment was negative. Flexion and extension were comparable with the contralateral side. There was full radial deviation. Ulnar deviation was limited to neutral by ulnar sided pain. There was tenderness over the dorsal ulno-carpal articulation.

A plain radiograph was taken and is shown below.

Figure 1

Figure 1

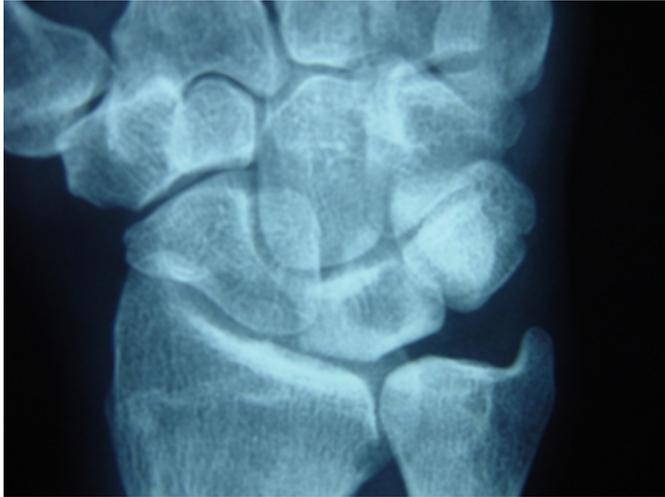


Q1 WHAT ARE THE FEATURES SEEN IN FIG 1, PLAIN PA RADIOGRAPH?

Q2 WHAT IS THE POSSIBLE DIAGNOSIS AND WHAT IS THE BEST INVESTIGATION AT THIS POINT?

Figure 2

Figure 2



Q3 WHAT ABNORMALITY IS SEEN ON THE IMAGING IN FIGURE 2?

Q4 HOW WOULD YOU MANAGE THIS CONDITION?

Ulnar Side Wrist Pain

ANSWERS

Q1 WHAT ARE THE FEATURES SEEN IN FIG 1, PLAIN PA RADIOGRAPH?

The wrist radiographs show a lunette cyst and there is a bifacetal lunette with a possible ulnar positive variance (although this must be confirmed on standardised views).

Q2 WHAT IS THE POSSIBLE DIAGNOSIS AND WHAT IS THE BEST INVESTIGATION AT THIS POINT?

Differential Diagnosis:

- Lunette Cyst (Intra-osseous ganglion)
- Ulnar carpal impaction with central TFCC tear
- Stylocarpal impaction
- Tenosynovitis of ECU

Neutral wrist variance views would identify the positive ulnar variance, wrist MRI or CT would define the lunette cyst more accurately and MRI arthrogram would help to identify a central TFCC tear, but the best investigation to look at the lunette chondral surface and the TFCC would be a wrist arthroscopy.

Q3 WHAT ABNORMALITY CAN BE SEEN ON THE IMAGING?

Standard neutral rotation wrist views (90-90) were taken and clearly show a positive ulnar variance and the cyst in the lunette.

Q4: HOW WOULD YOU MANAGE THIS CONDITION?

The patient underwent wrist arthroscopy. The lunette was found to be intact although there was chondromalacia of the ulnar lunette facet and an associated TFCC central perforation. The Ulnar head showed similar chondral changes to the lunette. The TFCC tear was debrided arthroscopically to remove any unstable flaps. The ulnar was shortened by 2.5mm using the Stanley jig and fixed with a 5 hole DCP plate and 3.5mm screws with a lag screw across the oblique osteotomy.

The DRUJ alignment is fairly neutral (Type 2) and it was debated whether ulnar shortening would be better undertaken by a “wafer” resection of the prominent ulnar head. Reverse obliquity DRUJ (Type 3) do poorly with ulnar shortening due to the overload of the DRUJ. The decision to undertake a formal ulnar shortening osteotomy was made when the relatively preserved chondral surface of the ulnar head was assessed arthroscopically.

The lunette cyst was left and a plan made for later dorsal curettage and bone grafting should the patient remain symptomatic. The patient made an excellent recovery and returned to gardening work at 3/12 after osteotomy healing.

References

1. Wheeler's Textbook of Orthopaedics, Lightdale N, Field J, Danney C, Internet Edition, Duke University Medical Centre, 1996

Author Information

D.M. Power

Department of Hand Surgery, Royal Orthopaedic Hospital, Birmingham Hand Service, Selly Oak Hospital