

Management of some common hand, wrist and elbow problems – when and how to refer appropriately

Simon Chinchawala

The views expressed in this article are those of the author and may not necessarily reflect those of other upper limb surgeons.

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Introduction

The current political climate in New Zealand has dictated that government initiatives favour hip and knee arthroplasty ahead of other sub-specialties in orthopaedic surgery. Coupled to this is the relative paucity of hand surgeons in New Zealand.

Patients who sustain injuries to their upper limbs are covered by the government agency, the Accident Compensation Corporation (ACC). They may be seen in the private sector by hand surgeons at no personal cost to the patient. Similarly, patients with private health insurance may also expedite treatment in the private sector.

Regrettably, the patient that loses out is the one who has not developed hand pathology as a result of trauma and who may not be able to afford private health insurance. An example would be an elderly patient with rheumatoid hands. The priorities in the public health system are such that many patients with hand conditions do not make it to the outpatient department because of triage tactics employed by the public sector.

Hence it is the responsibility of the general practitioner (GP) to have a basic understanding of upper limb problems, to have the confidence to triage such patients and develop the clinical acumen to know when to refer appropriately.

Regrettably, there is a perception that hand conditions are not painful, not debilitating and therefore not im-

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portant. As a GP, one can change this perception by writing better referral letters to the hospital specialists, instigating treatment and initiating investigations.

Better letters

No longer is it acceptable to write a one-sentence referral letter 'Please see Mrs B with carpal tunnel syndrome'. A better letter would have the specialist's name included and would read as follows: 'Please see Mrs B with carpal tunnel syndrome. This has been confirmed with nerve conduction studies. She is being woken three times a night, every night of the week. Night splints no longer help and I am not confident enough to administer a corticosteroid injection...'.

Including photographs, for example of a severe Dupuytren's contracture, also makes the case stronger for acceptance by the public hospital.

It is not the author's intention to lecture to colleagues on how letters should be written! On the contrary this advice is to help present a better case

for the triage officer in the public hospital, an offer that he/she cannot refuse.

Treatment options

Hand therapists

As a GP, one has access to hand therapists. These are physiotherapists, or occupational therapists, who have specialised in treatment of the upper extremity. They have a separate ACC contract and superior splinting abilities. To become a hand therapist, one must undergo 1800 supervised clinic hours and complete a postgraduate training programme, which involves a case study presentation and an examination.

It may be intimidating to a GP to realise that someone with a non-medical degree may have a better knowledge of upper limb conditions than they do, but the truth is that hand therapists have a better understanding of upper limb conditions and rehabilitation than most general orthopaedic surgeons. Hence, it is best to swallow one's pride and refer early, thereby enabling the hand therapist

to triage appropriately and organise timely referral to a hand surgeon.

The New Zealand Association of Hand Therapists has a website (<http://www.nzahat.org.nz>) which is both easy to navigate and informative. Finding a hand therapist in a particular district could not be easier.

Non steroidal anti-inflammatory drugs (NSAIDs)

Many anti-inflammatory medications are available on the market. The most common drug used in New Zealand is diclofenac. Due to the potential side effects, including gastritis, newer medications have become available including Celebrex™, Arcoxia™ and Bextra™. The latter drugs are not government subsidised and therefore expensive. They allegedly have fewer side effects. When prescribing anti-inflammatories it is important that a course be taken for a minimum of six weeks.

Corticosteroids

Several corticosteroids are available including, in order of strength, hydrocortisone, triamcinolone, methylprednisolone and dexamethasone. Corticosteroids are not benign. Complications of injecting them include fat necrosis, de-pigmentation, ulceration, tendon rupture and allergic reactions.

When administering corticosteroids it is prudent to add local anaesthetic to the water base. The local anaesthetic will abolish pain on a temporary basis and reassure both the patient and doctor that the corticosteroid has been administered in the correct anatomical site.

When injecting into soft tissue, the best needle is gauge 23G (blue needle). When injecting into a joint, a more stout 18G (pink needle) should be utilised. It is kind to infiltrate the skin with local anaesthetic prior to injecting into a joint.

Investigations

Radiological investigations include plain x-rays and ultrasound. The hand surgeon will investigate further, depending on the likely pathology with MRI, CT scan or bone scintigraphy.

More specific investigations include nerve conduction studies (for carpal tunnel syndrome) and photographs (especially for Dupuytren's contracture), both of which add strength to the validity of the referral letter.

Common hand conditions

The following conditions, in no particular order, are the 10 most commonly seen in primary health care. Each is discussed with particular reference as to when to refer on.

- Carpal tunnel syndrome
- Basal thumb arthritis
- Ganglia
- Mucous cyst
- de Quervain's tenosynovitis
- Trigger digit
- Mallet finger
- Lateral epicondylitis (tennis elbow)
- Dupuytren's contracture
- Wrist pain

Carpal tunnel syndrome

Carpal tunnel syndrome is common. It is due to entrapment and compression of the median nerve as it passes under the flexor retinaculum from the wrist into the hand. Compression may be caused by skeletal abnormalities, swelling of the flexor tendons in the carpal tunnel or thickening of the flexor retinaculum.

The condition is often associated with pregnancy, rheumatoid arthritis, diabetes, hypothyroidism (myxoedema), previous trauma (e.g. malunited fractures of the radius) and osteoarthritis.

History

Carpal tunnel syndrome is more common in middle-aged women, especially at the menopause.

The classic history is as follows: *'I get pins and needles in my hand affecting my thumb, index, middle and half my ring finger. This happens every night of the week on at least three occasions a night. It wakes me up and I have to hang my hands down and shake them to make them wake up...'* This history, with the strong nocturnal component, is pathognomonic of the condition.

Theoretically the little finger should not be involved as it is innervated by the ulnar nerve, but occasionally patients complain that the whole hand tingles.

Other symptoms include an aching pain radiating up the forearm to the shoulder and clumsiness. As the compression worsens the thenar eminence wastes and interferes with thumb function.

Examination

Inspection: The hand usually looks normal. Thenar eminence wasting may be subtle or marked and is best assessed by asking the patient to place the hands in the praying position (palm to palm) and observing the thumbs from above.

Palpation: The Tinel sign (percussion of the median nerve) may produce tingling in the digits. Placing the wrist in flexion for one to two minutes (Phalen test) may also bring on numbness and tingling. Two-point discrimination may be abnormal in the median nerve innervated digits. **Movement:** Thumb abduction may be weak.

General examination: It is important to check the patient's neck to ensure that the paraesthesia is not cervical in origin.

Investigation

If the history is typical, no further investigations are necessary. If the patient has neck pain or lack of nocturnal symptoms, nerve conduction studies may be requested. Ten per cent of nerve conduction studies in patients with carpal tunnel syndrome will be normal.

Management

Conservative: Night splints should be worn for a minimum of six weeks. These are available from the hand therapists, who will also administer exercises to improve nerve gliding and neural tensioning.

Corticosteroid injections should probably be left to the hand surgeon to administer as intraneural inoculation is a disaster.

Referral: If conservative management fails, the hand surgeon will offer surgery. This may be performed by the open or endoscopic technique. Numerous studies have demonstrated that the outcome at one year is the same whichever method is chosen.

Basal thumb osteoarthritis

Osteoarthritis of the carpometacarpal joint of the thumb is very common in women and almost inevitable.

History

Osteoarthritis of the carpometacarpal joint of the thumb occurs most commonly in post-menopausal women. Men are not immune but tend to develop osteoarthritis in the more proximal scaphotrapezotrapezoid (STT) joint.

Patients complain of pain in the base of the thumb over the anatomical snuffbox. Pain severity is determined by whether there is pain at night or not. There may be dysfunction with inability to unscrew jars and difficulty pinching.

Examination

Inspection: The base of the thumb may be subluxed (this is the natural history of the condition) and, in severe cases, the metacarpophalangeal joint may have compensatory hyperextension.

Because osteoarthritis is generalised, the digits may have obvious swelling and deformity in the distal interphalangeal joints (Heberden nodes).

Palpation: Tenderness is elicited by palpating the anatomical snuffbox. The grind test (axial loading and passive circumduction of the thumb metacarpal) may be positive reproducing pain and crepitus.

Movement: Key and pulp pinch is weak and painful.

Investigation

Plain x-rays of the thumb may demonstrate osteoarthritic changes in the carpometacarpal joint (joint space narrowing, subchondral sclerosis, cysts and osteophytes).

Management

Conservative: The patient should visit the hand therapist for customised splinting.

At six weeks a corticosteroid injection should be administered if splinting and anti-inflammatories have not helped.

Referral: After three months of failed conservative management the patient should be referred to a hand surgeon for operative intervention. Surgery for this condition is generally very successful and rehabilitation is between three and six months.

Wrist ganglia

A ganglion is a cystic, myxomatous degeneration of fibrous tissue. In the wrist they tend to originate from the wrist joint.

History

Ganglia are seen in patients of all ages. Whilst rare in children, they are occasionally seen. In children under the age of 10 spontaneous regression is very high and surgery should not be offered for at least one year from the date of presentation.

They grow slowly and have usually been present for months or many years before the patient seeks advice. The literature supports the notion that some ganglia are traumatic in origin.

Ganglia are said to be asymptomatic but this is not strictly true. Large ganglia may reduce wrist motion and may be tender. Arthroscopy often reveals capsular synovitis in symptomatic patients.

Examination

Position: Dorsal ganglia are classically situated over the scapholunate sulcus and are accentuated with wrist flexion. Volar ganglia tend to be on the radial side of the wrist closely intimate to the radial artery (surgeons check the patency of the ulnar artery prior to surgery!).

Palpation: Ganglia contain a gelatinous viscous fluid and, although cystic, may feel bony hard. Hence they are often misdiagnosed as carpal bosses. Dorsal ganglia are inti-



Figure 1. Thumb arthritis

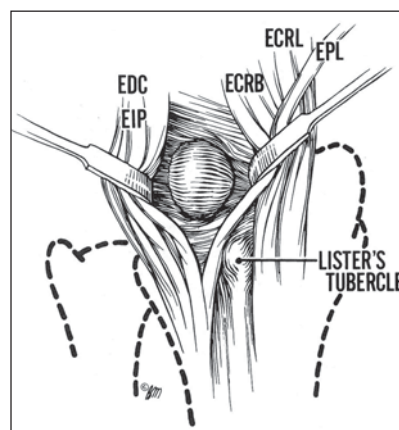


Figure 2. Ganglion

mate with the scapholunate ligament and this must be tested for integrity if the ganglion is believed to be traumatic in aetiology.

Movement: Wrist range of motion is generally normal.

Investigation

Examination should be enough to make the diagnosis. If doubt exists, ultrasound will confirm that the lesion is cystic. Hand surgeons may request an MRI to determine exactly where the stalk of the ganglion inserts and this investigation will help demonstrate pathology of the scapholunate ligament.

Management

Conservative: Traditionally ganglia were treated by bursting the sac (hitting with the Bible!) or aspiration with, or without, corticosteroid injection. If

the lesion is not bothersome, the best management is to leave alone.

Referral: Symptomatic ganglia are treated with excision biopsy but 25% of ganglia allegedly recur. This figure is reduced if the ganglion is followed down to the joint capsule and meticulous haemostasis achieved. Patients are casted for three weeks postoperatively and require hand therapy to regain a full range of wrist motion.

Mucous cyst

Mucous cysts are very common in patients with osteoarthritis of the hands. They are ganglia originating from a degenerative distal interphalangeal joint.

History

They most often occur in middle age patients with osteoarthritis in the hands.

The patient presents with a lump, often just proximal to the nail plate. This may have discharged a glutinous clear fluid. If the lesion is knocked it can be very painful.

Examination

Inspection: The cyst appears just proximal to the nail plate and distal to the dorsal distal interphalangeal joint crease. Osteophytes (Heberden's nodes) may be present. There may be a punctum if the history is one of regular discharge.

Palpation: The lesion may feel hard. Transillumination will confirm its cystic nature.

Movement: Passive motion of the distal interphalangeal joint may reproduce pain and crepitus in keeping with osteoarthritis.

General examination: The rest of the hand may have osteoarthritic changes, especially in the distal small joints and the thumb bases.

Investigation

Plain x-rays of the hand will demonstrate bony spurs (osteophytes) and joint space narrowing. If the lesion is bony hard to palpation, an ultrasound will confirm fluid in the cyst.

Management

Conservative: If pain is the predominant feature in the history, a customised mallet splint from a hand therapist will help rest the joint and diminish the pain. If the cyst is non-problematic the best option is to leave alone.

Do not be tempted to aspirate the cyst. Whilst the chances of developing a septic arthritis are small, this complication is devastating and requires hospital admission for intravenous antibiotics.

Referral: If the cyst is bothersome, it may be excised. The key to the surgery is debridement of the distal interphalangeal joint and excision of the osteophytes. The patient will need a mallet splint for a period of four weeks to avoid the complication of mallet finger.

Recurrence is best treated with ablation of the distal interphalangeal joint with an arthrodesis (fusion).

De Quervain's tenosynovitis

Painful thickening of the first dorsal extensor compartment of the wrist was first described by Dr Fritz de Quervain over one century ago. The compartment contains the thumb tendons of extensor pollicis brevis and abductor pollicis longus. The condition is due to excessive or prolonged friction where the tendons emerge from the sheath at the distal end of the radius. As a result the tendon sheath becomes inflamed and thickened.

History

De Quervain's tenosynovitis is most common in two groups of women. The first group includes post-partum breast-feeding mothers and the second comprises women aged 40–50.

Pain is localised to the radial side of the wrist and there may be swelling. Often there is a history of unaccustomed activity such as using secateurs for rose pruning or lifting the awkward car baby seat. Pain may be so severe that sleep is interrupted.

Examination

Inspection: There may be a fusiform swelling at the radial side of the wrist.



Figure 3. Mucous cyst



Figure 4. Injecting de Quervain's



Figure 5. Fat necrosis

Palpation: There is point tenderness at the radial styloid and the tendon sheath may feel thick and hard.

Movement: Forced adduction of the thumb and wrist is painful (Finkelstein's test) as is active extension against resistance (hitchhiker test).

Investigation

Clinical examination is enough to make the diagnosis and x-rays are unnecessary.

Management

Conservative: If there is no doubt about the diagnosis, a corticosteroid and local anaesthetic should be injected into

the extensor tendon sheath. This is easy to administer and if a sausage-shaped swelling appears this suggests that the corticosteroid is in the correct place (tendon sheath and not tendon!).

The patient is given a six-week course of non-steroidal anti-inflammatory medication and referred to the hand therapists for a customised thermoplastic splint that incorporates the thumb. *Referral:* If corticosteroid and splinting does not work, or if the symptoms recur, the next option is surgery, which is both simple and very successful.

Trigger digit (Stenosing tenovaginitis)

The flexor tendons ride in the flexor tendon sheaths. The latter are responsible for lubrication of the tendons and an efficient pulley system that tethers the tendons to the phalanges, thereby avoiding bowstringing as the fingers are flexed.

If the tendon swells it can jam at the entrance of the tendon sheath (the anatomical site of the A1 pulley). In this situation the finger becomes stuck in flexion. Forceful extension releases the finger, which straightens with a painful snap (trigger).

Trigger digits are more common in patients who have diabetes or rheumatoid arthritis.

History

Trigger thumb can rarely occur in babies and the jury is still undecided if this is congenital or acquired. It is the author's experience that all these require surgical release with an excellent outcome. More commonly the condition occurs from age 20 onwards.



Figure 6. Injecting trigger thumb

Any digit may be affected although this is more common in the thumb, middle and ring fingers. The patient notices that the finger clicks as he/she bends it; when the hand is unclenched, the affected finger remains bent but with further effort it suddenly straightens with a painful snap.

Examination

Inspection: The digit will look normal. In severe cases, the patient may present with a locked flexed digit.

Palpation: There is tenderness and swelling at the A1 pulley (palpable at the distal palmar crease).

Movement: As the finger is passively flexed and extended, crepitus is felt at the A1 pulley.

Investigation

Clinical examination is enough to make the diagnosis and x-rays are unnecessary.

Management

Conservative: Corticosteroid and local anaesthetic injected into the flexor tendon sheath will resolve symptoms in 75% of patients. Patients should also be referred for hand therapy. The technique is easy; however it is wise to request the patient to gently flex and extend the finger with the needle tip in position to avoid intra-tendinous inoculation.

Some patients will refuse a corticosteroid injection and, in these circumstances, it is reasonable to try hand therapy alone or move straight to surgery.

Referral: If the corticosteroid fails, or at the patient request, a surgical opinion is reasonable. Surgery is minor and very successful.

Mallet finger

This results from injury to the extensor tendon of the terminal phalanx. It may be due to direct trauma but more often follows tendon rupture when the finger tip is forcibly bent during active extension, perhaps whilst tucking the sheets under a mattress or trying to catch a ball.

History

The patient usually remembers the original injury but may not present early if the finger is not painful.

The inability to extend the tip of a finger is not a great disability, but for a person with an occupation that requires fine finger movements, the deformity can be a serious handicap. With time, the proximal interphalangeal joint compensates by hyper-extending (swan-neck deformity).

Examination

Inspection: The finger is held with the distal interphalangeal joint flexed.

Movement: Active extension is not possible whereas passive is full.

Investigation

A plain x-ray will determine whether the injury is a bony mallet (avulsion fracture) or ligamentous.

Management

Conservative: All mallet injuries should be referred to the hand therapist. Generally acute injuries do well with distal interphalangeal joint splinting in extension for six weeks followed by supervised weaning out of the splint (Middlemore protocol).

It has been the author's experience that even late presentations (up to three months) do well with splinting. Pain on the dorsum of the distal interphalangeal joint is common for nine months after the injury. *Referral:* If the injury is a bony mallet involving more than 30% of the joint surface or the distal phalanx is subluxed, referral to a hand surgeon is appropriate. Failed conservative management in the symptomatic patient is best treated with a distal interphalangeal joint arthrodesis.

Tennis elbow (Lateral epicondylitis)

History

Tennis elbow is a misnomer in that the condition is much more common in non-athletes.

Lateral epicondylitis usually affects patients in the fourth and fifth decades of life.

The condition is clinically characterised by pain at the lateral epicondyle that is aggravated by wrist extension and gripping.

Examination

Inspection: The elbow looks normal.

Palpation: The point of maximal tenderness is at the lateral epicondyle and just distal to this.

Movement: The typical pain of tennis elbow is reproduced by passively flexing the fingers and wrist with the elbow fully extended. There is also pain on resisted wrist extension.

Differential diagnosis: Golfer's elbow is pain at the medial epicondyle that is exacerbated by wrist flexion. This is a less common condition.

Differentiation of tennis elbow from the even less common radial tunnel syndrome is not always easy and sometimes the two lesions coexist. In radial tunnel syndrome tenderness is most severe more distal to the lateral epicondyle, in the mobile muscle mass just distal to the radial head (this is where the radial nerve lies). Radial tunnel syndrome pain is produced by resisting middle finger extension or by forearm supination with the elbow extended.

Investigation

Plain x-rays are not necessarily indicated early in the management of tennis elbow unless there is limitation of motion, angular deformity, or a palpable mass. X-rays may be advisable to rule out other problems if the patient with typical clinical symptoms does not respond to initial therapy.

Management

Conservative: Tennis elbow usually responds to an initial period of rest followed by a programme of exercises to strengthen the forearm and hand muscles. If the patient does not make a good response to a six-week course of hand therapy, splinting and anti-inflammatory medication, a cor-

ticosteroid and local anaesthetic injection should be administered. Up to three injections over a three-month period are permissible.

Referral: Failed conservative management is the indication for referral to an upper limb specialist. Approximately 5% of patients require surgical management.

Recently, autologous blood injection into the lateral epicondyle has shown very promising results in recalcitrant tennis elbow. This should be left to the specialist to administer if indicated.

Dupuytren's contracture

History

This is nodular hypertrophy and contracture of the superficial palmar fascia (palmar aponeurosis that is superficial to the flexor tendons). The aetiology is not known although numerous theories exist. The proliferating cell in the fascia is the myofibroblast. As the thickening increases, the fascia becomes attached to the skin and the fingers start to develop flexion contractures.

The jury is still out as to whether Dupuytren's contracture may be caused by repeated local trauma. Recent literature suggests a link. There is no doubt that local trauma may precipitate worsening of a pre-existing condition.

Dupuytren's contracture usually begins in middle age but progresses so slowly that many patients do not present until old age. There is a younger group that may develop a more aggressive variant of the condition that is very difficult to treat.

Men are affected ten times more often than women.

Initially the complaint is of nodular thickening in the palm. Gradually this extends to involve the ring or little finger. With time the metacarpophalangeal and proximal interphalangeal joints develop flexion contractures and the patient complains that he/she is no longer able to place the palm of the hand flat on the table. Pain is not a feature of the



Figure 7. Dupuytren's contracture

condition although very rarely the nodules may be tender to palpation. Activities of daily living are hardly ever affected although, in severe contracture, the patient may complain that the finger gets in the way.

Dupuytren's contracture is frequently bilateral and can also occur in the feet. In Dupuytren's diathesis, there is a rare, curious association with fibrosis of the corpus cavernosum (Peyronie's disease). In such patients the dorsal knuckle pads are thickened (Garrod's pads).

There is a higher, unexplained, incidence of Dupuytren's contracture in patients who have epilepsy or cirrhosis.

Dupuytren's contracture may be familial and, if so, it is inherited in an autosomal dominant manner. It is more common in people of Northern European extraction (Gaelic and Nordic).

Examination

Inspection: The palmar skin may be puckered or creased proximal to the ring and/or little fingers. There may be flexion contractures of the metacarpophalangeal and proximal interphalangeal joints.

Palpation: Nodules feel firm and irregular with indistinct edges. Taut strands may be felt running from the nodule to the sides of the bases of the affected fingers, and proximally towards the centre of the flexor retinaculum.

Movement: Full passive extension of the affected fingers may not be possible; sometimes the pretendinous cord is accentuated and looks very much like the flexor tendon which, of course, it isn't!

The flexion contractures should be measured with a goniometer and recorded. The proximal interphalangeal joint may have an apparent flexion deformity, which often improves when the joint is remeasured with the metacarpophalangeal joint fully flexed. In the latter situation, this is the real flexion deformity.

Management

Conservative: Splinting is futile in this progressive disease. Mild disease may be treated expectantly with annual review.

Referral: If the patient is unable to place the palm flat on a table, or activities of daily living are being affected, referral is appropriate. When to operate is surgeon-dependent but generally, if the metacarpophalangeal and/or proximal interphalangeal joints have flexion contractures of 30° or more, surgery is offered.

The condition is progressive and patients are counselled about recurrence in the future. Rehabilitation requires a minimum of three to six months; hand therapy is very important for a good outcome.

Wrist pain

Assessment of the patient with wrist pain is daunting for the general orthopaedic surgeon, let alone the general practitioner. Most wrist pain resolves with rest, splinting and anti-inflammatory medication. The role of hand therapy cannot be underestimated; the therapist will fabricate the correct splint, start local therapies and will provide advice about the correct time for onward referral to a wrist specialist.

Non-mechanical causes of wrist pain

It is vitally important to determine whether the pain has a mechanical cause or not. Pain syndromes (complex regional pain syndrome [CRPS]) are often under-diagnosed and are seen relatively commonly by hand and wrist surgeons. Clues include a history of pain out of proportion to what one would expect from a particular injury. Such pain is often de-

scribed as stabbing or burning. Often, immobilisation of the joint does not help. The hand may exhibit excessive sweatiness and motley colour changes. Gently brushing the skin over the wrist with the back of the examiner's hand may be intensely unpleasant for the patient (allodynia). Such patients do not respond to overzealous surgery; in truth this can make them worse.

These patients need the help of a multi-disciplinary pain team, with physicians, psychologists and occupational therapists. Half the battle is convincing the patient that they have a real problem. In addition to coping strategies, medications include amitriptyline, carbamazepine, clonidine patches and gabapentin. An astute hand therapist may approach the general practitioner to prescribe first-line medication, such as low dose amitriptyline.

Mechanical causes of wrist pain

The majority of patients will describe an injury. It is important to ascertain the severity of the injury and elicit whether there was immediate swelling or bruising. As the wrist is a complex joint (radius, ulna, eight carpal bones, five metacarpals), it is helpful to determine whether the pain is localised to the radial side, the ulnar side or is global in distribution.

The common causes of radial wrist pain include:

- fracture of the distal radius
- fracture of the scaphoid
- fracture of the thumb metacarpal
- scapholunate ligament disruption
- thumb carpometacarpal joint osteoarthritis
- scaphotrapeziotrapezoid (STT) joint osteoarthritis
- de Quervains tenosynovitis, and
- carpal tunnel syndrome.

The common causes of ulnar wrist pain include:

- fracture of the ulnar styloid
- fracture of the triquetrum
- triangular fibrocartilage complex (TFCC) tears

- lunotriquetral ligament disruption
- ECU tendonitis, and
- distal radioulnar joint (DRUJ) osteoarthritis.

The most common cause of global wrist pain is radiocarpal osteoarthritis. Less common causes include hyperlaxity and CRPS.

Once the anatomical site of the pain has been determined, examination is geared to the likely pathology.

Examination

Inspection: Swelling or bruising may be evident.

Palpation: Each anatomical landmark should be palpated, depending on the suspected pathology.

Movement: The active and passive range of motion (flexion, extension, pronation and supination) should be recorded.

Investigation

Plain x-rays should include postero-anterior and lateral views. These are the standardised internationally accepted views (an AP view is never useful). If a fracture of the scaphoid is suspected, scaphoid views are very useful.

Management

Naturally, obvious deformity from a severe fracture merits acute hospital admission. These patients will have often bypassed the general practice setting and present directly to an accident and emergency department.

The hand therapist is the next port of call for the majority of patients with wrist pain. Besides assessment and splinting they play an important part in triage, acting as a link between the primary health carer and the hand specialist.

Referral: Generally, if there has been no significant improvement in symptomatology after a six-week period of splinting and anti-inflammatory medication, referral to a hand and wrist surgeon for further assessment is appropriate.

Competing interests

None declared.