ELBOW PAIN

A 37-year-old man presents with right elbow pain for the past 2 months. This started gradually and is not getting any better, which is concerning him. He is a carpenter and is right-handed. He notices it is more painful when he is at work but improves slightly when he rests. He describes some tingling around the elbow and forearm as well. He has no other past medical history and is not on any medications.

On examination, there is no visible swelling or erythema around the right elbow. He has mild tenderness on the medial epicondyle. He has full range of movement of the elbow. He has normal tone, power and sensation in both upper limbs.

Age	37 years
Gender	Male
BP	123/70
HR	73
RR	18
Temp	36.9
HIV status	Negative

QUESTIONS

1. What is the most likely diagnosis?
2. Are there any other questions you would like to ask him?
3. What would you look for on examination to support your diagnosis?
4. What are the other differentials for a unilateral Elbow pain?
5. How would you manage him?

DISCUSSION

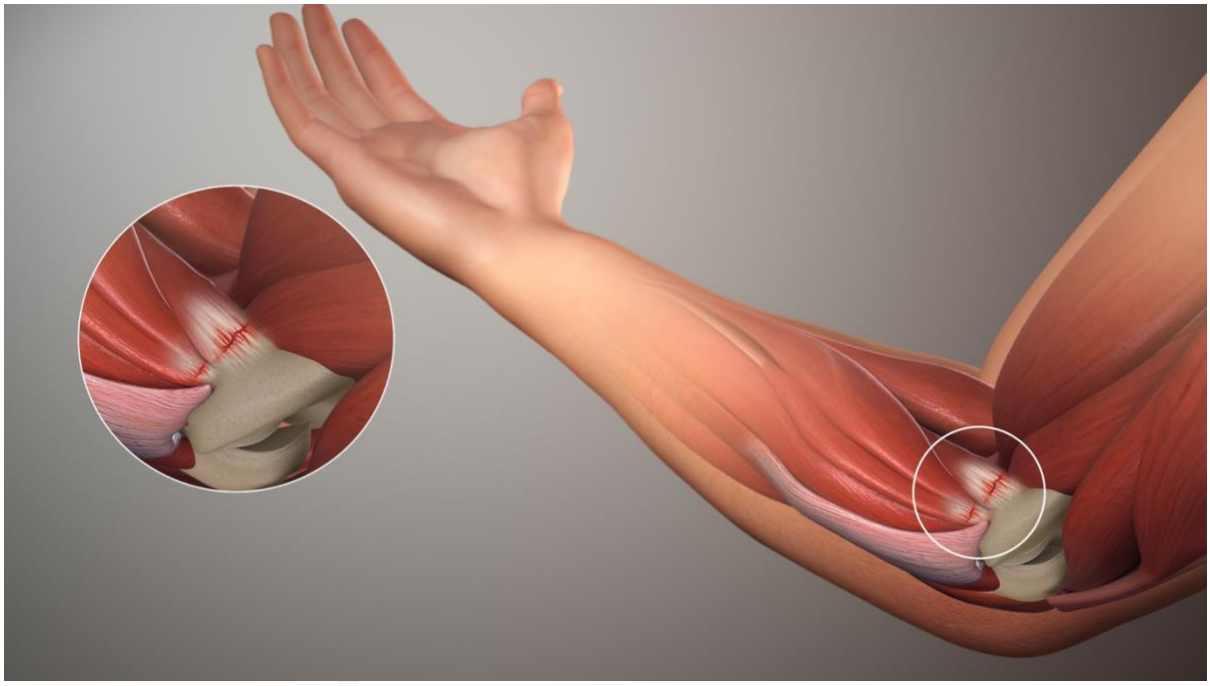
1. **What is the most likely diagnosis?**

From this patient's history, it appears that the most likely diagnosis is **Medial Epicondylitis** (also known as **Golfer's Elbow**). This is an inflammation of the tendons (tendinosis) as they come together in a common tendinous sheath at the medial epicondyle of the humerus.

The muscles of the anterior forearm allow flexion of the fingers as well as flexion and pronation of the wrist (common actions in a carpenter). The tendons become inflamed with repetitive use.

The onset is usually gradual, and symptoms can persist for weeks. It is similar to Lateral Epicondylitis (also known as Tennis Elbow), which affects the tendons around the lateral epicondyle of the humerus.

This image demonstrates the location of Medial Epicondylitis



2. **Are there any other questions you would like to ask him?**

As with any joint pain, it is important to clarify if the onset was acute or gradual. An acute onset elbow pain could be a result of trauma (fracture) or infection (septic arthritis). These are serious conditions but sound less likely in this patient as he has had ongoing symptoms for 2 months now (check that there is no history of trauma nor of fevers).

It would be useful to ask specifically about any sources of strain as this is the most typical cause of Medial Epicondylitis – ask the patient if they perform any repetitive movements at work such as screwing or hammering.

Ask about other associated symptoms such as stiffness of the joint or arm weakness.

Ask about sensation in the hand (the ulnar nerve is located close to the medial epicondyle and inflammation may result in paraesthesia of the 4th and 5th fingers). Cubital tunnel syndrome can cause similar symptoms.

3. **What would you look for on examination to support your diagnosis?**

When examining a joint remember to:

- **Look** (Swelling? Redness? Bruising? Deformity?)
- **Feel** (Tenderness? Warmth?)
- **Move** (Check range of motion at joint)
- **Assess function** (Pain or difficulty with e.g. putting on coat/lifting bags etc)

Look	Usually there is no abnormality on inspection of the elbow in epicondylitis.
Feel	Tenderness to palpation over the medial epicondyle is the hallmark of the diagnosis.
Move	Range of movement is usually retained. But with the elbow in extension (straightened), patients will have pain on passive wrist extension and resisted wrist flexion. They may also have pain with resisted forearm pronation (these latter manoeuvres are helpful clinical tests for the condition)
Function	The patient may have pain on shaking hands or squeezing a ball

A good neurologic exam should also be performed, paying particular attention to the median and ulnar nerve distributions.

4. **What are some of the other differentials for a unilateral Elbow pain?**

Lateral Epicondylitis: As described above, this has a similar history to Medial Epicondylitis but affects the lateral aspect of the elbow. It typically presents after repetitive movements and pain occurs when straightening the elbow against resistance.

Olecranon Bursitis: This also occurs as a result of repetitive movements or minor trauma but may be caused by bacterial infection. Typically affects middle-aged male patients or those with a history of Rheumatoid Arthritis or Gout. On examination, there is pain, swelling and erythema of the bursa around the olecranon process.

Osteoarthritis: This presents as a gradual and progressive pain in the elbow with reduction in movement, particularly flexion and extension. This is most common in the elderly and may be bilateral.

Septic Arthritis: This presents as a fever with an acute onset pain, swelling and erythema of the joint. There would be restricted flexion and extension of the elbow joint and on examination, the joint may feel hot to touch. If this is suspected, urgent hospital treatment is required for IV antibiotics and possibly surgical drainage.

Fracture: Consider this for any trauma to the elbow (or the rest of the arm) with resulting pain, swelling and restricted movements. This would require an X-Ray of the joint to confirm the fracture and management in hospital by a specialist.

5. **How would you manage him?**

It is important to stress that this condition can take time to improve (weeks to months) and that conservative management is usually effective, including **R**est, **I**ce, **C**ompression and **E**levation (**RICE**). This may also include the use of NSAIDs (Non-Steroidal Anti-Inflammatory Drugs) or an Elbow strap.

Ibuprofen, an NSAID, can be taken up to three times daily as an oral capsule or applied topically to the affected area three times daily. Paracetamol can also be helpful and can be given orally up to four times a day.

Ice is usually effective at reducing the pain and inflammation associated with this condition. Apply an ice pack for 15-20 minutes at a time and repeat this multiple times through the day. Some people may find heat more comfortable and this is an alternative option.

Rest is important as Medial Epicondylitis often develops due to overuse. An elbow strap can also be helpful at reducing strain at the elbow.

Gentle exercises involving the forearm muscles should be encouraged, as indicated in this exercise program from the American Academy of Orthopaedic Surgeons: https://orthoinfo.aaos.org/globalassets/pdfs/a00790_therapeutic-exercise-program-for-epicondylitis_final.pdf

If the pain persists despite the above conservative management, the next step to consider would be a steroid (glucocorticoid) injection into the inflamed area around the medial epicondyle. This should only be attempted by a specialist due to the proximity of other structures such as arteries, veins and nerves. This tends to be effective in reducing the pain and inflammation associated with this condition.

If this is ineffective and pain persists, the next step would be surgical intervention by a specialist, though this is usually not required.

KEY POINTS

- Medial Epicondylitis typically presents as a gradual onset elbow pain as a result of repetitive movements
- Conservative management (with rest, ice, analgesia, elbow strap and gentle exercises) is usually effective
- Advise that this can take time (weeks to months) to settle
- Consider trauma or infection as other important differentials if the patient presents acutely
- If conservative management is ineffective, consider referral to a specialist