

Right lateral elbow pain

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Case history

A 32 year old dairy farmer and badminton enthusiast has had 20 months of right lateral elbow pain (Figure 1) that worsens with use. He has been unable to play badminton for three months. He is able to milk but has had to reduce other work activities. In the morning he is barely able to lift a kettle.

Management before presentation has included oral anti-inflammatory tablets and four cortisone injections to the lateral elbow. The first two injections provided dramatic benefit for six weeks each time. The last two, nine months ago and three months before presentation provided minimal, if any, benefit. He wears a tennis elbow brace at work and does some stretching.



Figure 1. Anatomy of elbow pain

Question 1

Given that his elbow has not settled, what is the diagnosis?

Question 2

What conditions merit exclusion?

Question 3

Should investigations be performed?

Question 4

What conservative therapy is appropriate?

Question 5

What nonsurgical interventions are available?

Question 6

What definitive therapy is appropriate?

Answers

Answer 1

Extensor tendinopathy of the elbow. The clinical features and initial response to injections is 'confirmatory'.

Answer 2

Lateral compartment elbow osteoarthritis, posterior interosseous nerve entrapment, and cervico-thoracic referred pain merit exclusion.

Answer 3

Although the diagnosis can almost always be made clinically, in a patient with significant and persistent disability, ultrasound and X-ray are advisable. The latter excludes bony and radio-capitellar disease. There may be a traction spur in the region of the lateral epicondyle. An ultrasound will demonstrate the severity of the tendinopathy. With this protracted presentation, there will almost certainly be significant tendon degeneration (angio-dysplasia and mucoid degeneration). The ultrasound may assist in decision making as to whether ongoing conservative therapy is realistic (pathologic changes are not extensive) or where more definitive intervention may be appropriate. However, decisions along these lines are still clinical and based upon condition severity and impact on patient.

Answer 4

Conservative therapy involves active physiotherapy input. Attention to cervico-thoracic restriction and to any neural component and myofascial shoulder girdle 'dysfunction' (postural weakness and pain) is critical. Further, the only potential to reverse tendon pathology is with a graded strength program. This will progress with a graded isometric to an eccentric program over 1–6 months with a physiotherapist providing and supervising this graded progression.

Answer 5

Extra-corporeal shock wave therapy, as is used in lithotripsy, is not cheap but it can provide significant benefit in approximately two-thirds of patients with both short and long term benefit from three sessions of therapy.

Answer 6

Surgery is an option for refractory tendinopathy where:

- symptoms have been present for over 12 months
- a trial of a graded strength therapy has not been successful
- where there is ongoing local tenderness without shoulder girdle or forearm trigger point pain
- where ultrasound evidence of tendinopathy is present, and
- maybe where an injection of local anaesthetic into the common extensor origin provided relief for the duration of the anaesthetic.

Surgery will involve the release of the tendon, excision of the degenerative lesion and may involve exploration of the posterior interosseous nerve to exclude any neurologic contribution locally.

Subsequent rehabilitation involves graded resumption of a strength program as was attempted preoperatively, as soon as pain permits.

Return to milking may not be possible for six weeks and return to badminton will involve return to noncompetitive skills at three months, grading up to competition at six months.

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