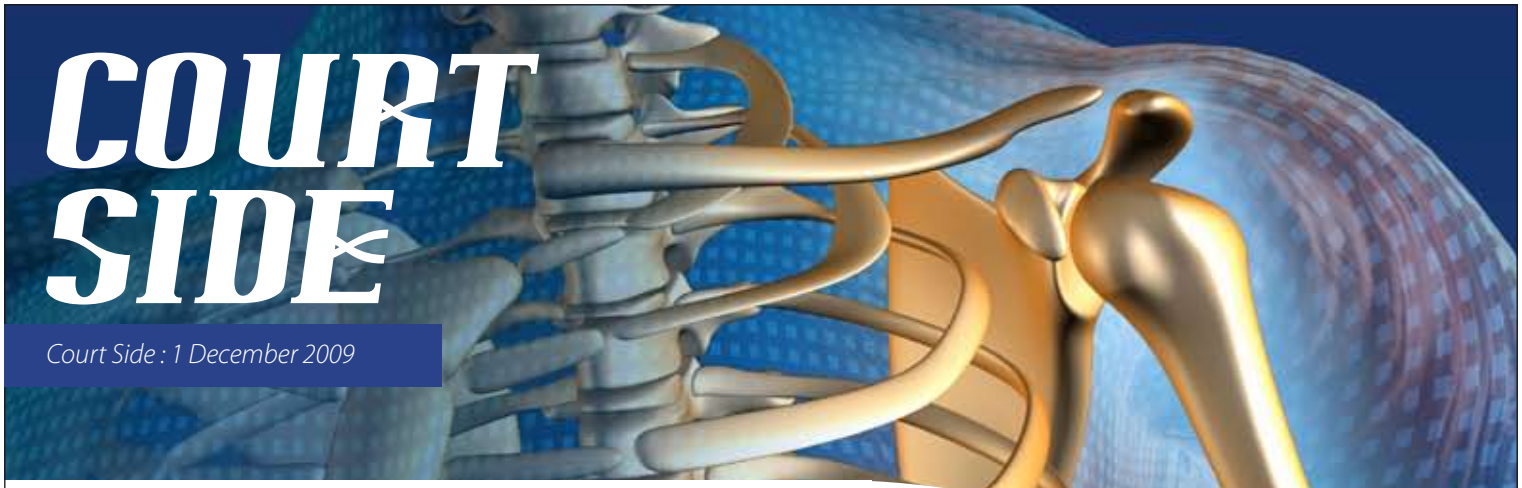
COURT SIDE

Court Side : 1 December 2009



A Back2Sports Sports Injury Management Newsletter

Tennis/Golfer's Elbow:
Tendinitis or Tendinopathy?

Very often, patients with pain either over the lateral or medial side of the elbow, are diagnosed with having Tennis or Golfer's elbow respectively. Patients have been known to have recurrent pain and that the prognosis for complete recovery has been about 46-49%[1]. But why does such a simple problem have such moderately poor prognosis? The answer lies with poor compliance to treatment and coping strategies. This poor compliance arises from the inadequate understanding of the nature of injury.

What is the nature of this Tennis or Golfer's elbow? Is it a tendinitis or tendinopathy? The debate has been going on since 1999 and it still seems to be an open ended debate[2].

Difference in terminology

As all of us know, tendinitis is the inflammation of the tendon and is the inflammation that would cause the pain. Under the microscope, there would be inflammatory markers and cells in the tendon. As for tendinopathy, it means an accumulation of dead tissue and it's the lack of flexibility of the tissues that causes the pain.

Mechanism of Injury

The nature of Tennis or Golfer's elbow tends to be a repetitive stress injury (RSI) rather than a sudden trauma. The condition normally arises from repeated overloading of the tendon and from poor technique which stress the common tendon of the extensor or flexors of the wrist respectively. Though the name is such, most people suffering from these conditions do not participate in such sports. As a matter of fact, people who are involved in activities which require repetitive wrist and/or finger movements (e.g. typing) or tight grip, are the ones most pre-disposed to developing Tennis or Golfer's elbow.

Tendinitis or Tendinopathy?

To determine whether the condition is a tendinitis or tendinopathy, a good and clear subjective assessment would enable us to better diagnose the problem. From the knowledge that we have from the definition, patients who have a sudden onset of pain and present within the first 2 weeks, chances are they are most probably suffering from a tendinitis. However, if the client has been having the pain for duration of longer than 2-3 months and has been recurring, their pain might be most likely coming from a tendinopathy.

Medical Management of Tendinitis/Tendinopathy

The management of this tendinitis would be similar to the management of any inflammation. Doctors would normally prescribe NSAIDs or may give a cortisone injection to manage the inflammation[3,4,7] and should refer to a physiotherapist for further management.

As for the management of tendinopathy, NSAIDs may or may not have any significant effects. In recent years, there have been more studies that advocate the use of Extracorporeal Shock Wave Therapy (ESWT) in the management of tendinopathy but results have been mixed. ESWT has been found to breakdown the dead tissues, increase the blood circulation and stimulate the laying down of fibroblast to bring about healing[5]. A platelet-rich plasma (PRP) injection, which is still in the experimental stage, has been used in some research but with mixed results[6].

Numerous studies have been done to support physiotherapy management of Tennis and Golfer's elbow. In a typical situation, modalities like Ultrasound, ice or low level lasers have been found to bring about relief of the pain in acute situations[3,4]. In latest researches out of Australia and New Zealand, mobilization with movement of the common extensor/flexor tendon has been found to manage the initial pain effectively and together with exercises to stretch and strengthen the tendon, significantly improves the prognosis of the condition and prevents recurrence. Stretches for the extensors and flexors aids the laying down of the scar tissues in the striated orientation while strengthening exercises to load the tendons eccentrically, improve the strength of the strained tendon and this would maximise the healing potential[7]. A support or brace would be useful to decrease the pain by taking the strain off those tendons, but limit the use of the brace to a maximum duration of 2 weeks. Usage of the brace beyond 2 weeks actually causes reliance to the brace and would ultimately weaken the tendon and muscle[1,3,4].

In chronic cases of Tennis or Golfer's elbow, manipulation of the cervical spine might be required as there might be some involvement of the radial nerve, in the case of Tennis elbow, the median nerve or ulnar nerve, in the case of Golfer's elbow. Involvement of these nerves can be tested through the Upper Limb Tension Tests (ULTT). In these cases, mobilization or manipulation of the

neck does bring about relief for the clients and they are also taught nerve mobilization exercises to improve their condition[8].

If the client wishes to return to their sport or activity, which had caused them the pain, having a look at their mechanics or techniques would be most useful. Correcting any inappropriate techniques or weakness in muscles should be done before allowing them to return to sport.

Conclusion

Understanding the chronicity of the injury for Tennis or Golfer's elbow will enable us to better manage the condition by directing the appropriate management. With doctors and physiotherapists working together as a team, it is possible for the client to recover to the maximum potential and improve the prognosis of the injury.

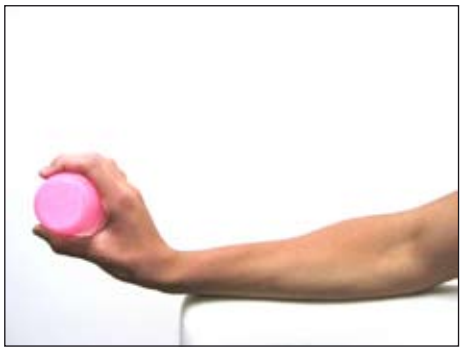
Recommended exercises for tennis elbow

The following exercises should be performed without pain. They should be performed slowly so that you can feel your muscles controlling the movement. Being too aggressive can actually make your injury worse.

- **Muscle stretch**
  - » Hold your arm in front of you with your palm facing the ground (extensors)
  - » Keep your elbow straight
  - » Bend your wrist downward as far as it will go or at the point of pain onset
  - » Hold the stretch for 20-30 seconds

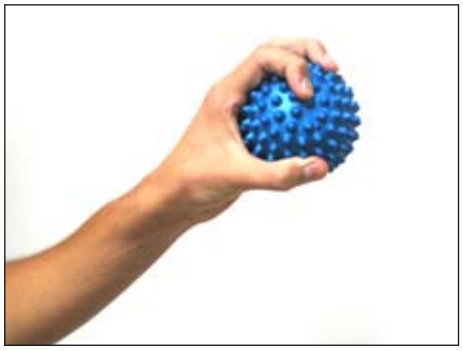
  - » Repeat the stretch with the palm facing the ceiling (flexors)

- **Wrist extension with weight**
  - » Sit with your forearm supported on a chair or table
  - » Hold a 1-2 kg weight in your hand with the palm facing toward the ground
  - » Bend your wrist upward slowly until your wrist stops moving
  - » Slowly lower your wrist to starting position
  - » Perform 3 sets of 10 repetitions



- **Wrist flexion with weight**
  - » As per wrist extension exercise, except with your palm facing the ceiling

- **Ball squeeze**
  - » Hold a tennis ball in your hand
  - » Squeeze 25 times
  - » If this reproduces your pain, try using a softer object like a stress ball



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