

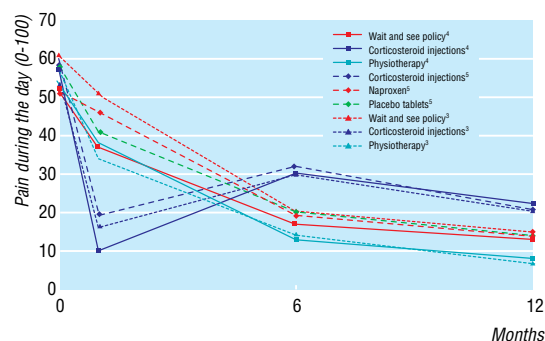
## Tennis elbow in primary care

### *Corticosteroid injections provide only short term pain relief*

Research p 939

**T**ennis elbow or lateral humeral epicondylitis is considered to be an overload injury, which occurs after minor and often unrecognised trauma (microtrauma) to the proximal insertion of the extensor muscles of the forearm. The pathological changes often occur in the tendon of the extensor carpi radialis brevis muscle. The annual incidence of tennis elbow in general practice is four to seven cases per 1000 patients, with a peak in patients 35-54 years of age. Lateral epicondylitis is a self limiting condition. The average duration of a typical episode is about six months to two years, but most patients (89%) recover within one year.<sup>1</sup> Various conservative interventions exist for the treatment of this condition including pain relieving drugs, corticosteroid injections, physiotherapy, elbow supports, acupuncture, surgery, and shockwave therapy. However, available evidence for the effectiveness of these interventions is limited.<sup>2</sup>

In this week's *BMJ* a randomised controlled trial by Bisset and colleagues compares the effectiveness of physiotherapy, corticosteroid injections, and a "wait and see" policy in 198 people with tennis elbow.<sup>3</sup> Patients with symptoms lasting at least six weeks were recruited through advertisements and media releases in Brisbane, Australia. Interventions were physiotherapy consisting of eight sessions of mobilisation with movement and exercises; injection therapy, including at least one injection of 1 ml triamcinolone acetonide (10 mg) and 1 ml lidocaine 1%; or a wait and see policy consisting of ergonomic instructions and use of analgesic drugs, heat, cold, or braces, if needed. At six weeks' follow-up, the main outcome measures (global improvement, pain-free grip strength, assessor's rating of the severity of complaints, severity of elbow pain, and elbow disability) were significantly better in the group receiving corticosteroid injections than in the other groups. However, the benefits of corticosteroid injections lasted for a short time only. At long term follow-up, the opposite effects were found, with physiotherapy being superior to corticosteroid injections for all outcome measures. The wait and see policy also showed beneficial long term effects compared with corticosteroid injections, although these differences were not statistically significant for all outcomes. Physiotherapy showed superior short term effects compared with the wait and see policy, but in the long term, these differences were not statistically significant or clinically relevant.<sup>3</sup>



Severity of pain during one year of follow-up in three randomised controlled trials

The poor long term results of corticosteroid injections might surprise the reader. However, two earlier randomised controlled trials in patients with tennis elbow found similar results (figure).<sup>4,5</sup> The course of pain severity in patients who received corticosteroid injections is similar in the three studies. The high recurrence rate in the treatment group might be explained by the rapid improvement in pain, which could lead to increased activity and overtaxing of the affected elbow. Alternatively, corticosteroid injections might be harmful to the tendon. The reported adverse reactions are generally mild, however, and total ruptures were not seen, but in contrast to other painful overuse conditions in which total tendon ruptures have been reported (such as Achilles tendinopathy, biceps tendinopathy, and patella tendinopathy), the tendon of the extensor carpi radialis brevis muscle is strongly connected and supported by other extensors of the wrist. Further research is needed to explain or at least predict the risk of recurrence after corticosteroid injections for tennis elbow.

Bisset and colleagues showed that participants receiving physiotherapy needed less additional treatment than those in the other intervention groups.<sup>3</sup> However, the direct (or healthcare) cost of physiotherapy is much higher than the cost of corticosteroid injections or a wait and see policy.<sup>6</sup> An economic analysis of the study should determine whether the relatively small difference between physiotherapy and wait and see policy is cost effective.<sup>3</sup>

Since 1997, guidelines of the Dutch College of General Practitioners for the management of lateral epicondylitis have recommended a wait and see policy,

including ergonomic advice and prescription of analgesic drugs if necessary.<sup>7</sup> Evidence indicates that such a wait and see policy will suffice for most patients.<sup>1-5</sup> Most studies were not sufficiently powered to detect clinically relevant subgroup effects, however, so a meta-analysis of individual patient data would help determine which subgroups of patients may benefit from more extensive treatment. Furthermore, a standard set of baseline and outcome measures for patients with lateral epicondylitis will facilitate direct and indirect comparisons of interventions across studies.

Clinicians should understand and discuss the advantages and disadvantages of the treatment options with their patients. If people prefer quick relief of symptoms, a corticosteroid injection might be suitable, but the long term prognosis may be poor. For most

patients, a wait and see policy with adequate advice and provision of analgesic drugs will suffice. For patients with severe and persistent elbow complaints, physiotherapy may provide an effective, and possibly cost effective, alternative.

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1 Smidt N, Lewis M, van der Windt DAWM, Hay EM, Bouter LM, Croft P. Lateral epicondylitis in general practice: course and prognostic indicators of outcome. *J Rheumatol* 2006;33:2053-9.  
 2 Buchbinder R, Green S, Struijs P. Tennis elbow. *Clin Evid* 2006 (<http://www.clinicalevidence.org/ceweb/conditionpdf/1117.pdf>)  
 3 Bisset L, Beller E, Jull G, Brooks P, Darnell R, Vicenzino B. Mobilisation with movement and exercise, corticosteroid injection, or wait and see for tennis elbow: randomised trial. *BMJ* 2006 doi: 10.1136/bmj.38961.584653.AE  
 4 Smidt N, van der Windt DAWM, Assendelft WJJ, Devillé W, Korthals-de Bos I, Bouter LM. Corticosteroid injections, physiotherapy or a wait-and-see policy for lateral epicondylitis: a randomised controlled trial. *Lancet* 2002;359:657-62.

5 Hay EM, Paterson SM, Lewis M, Hosie G, Croft P. Pragmatic randomized controlled trial of local corticosteroid injection and naproxen for treatment of lateral epicondylitis of elbow in primary care. *BMJ* 1999;319:964-8.  
 6 Korthals-de Bos IBC, Smidt N, Van Tulder MW, Rutten-van Molken PMH, Ader HJ, van der Windt DAWM, et al. Cost effectiveness of interventions for lateral epicondylitis. Results from a randomised controlled trial in primary care. *Pharmacoeconomics* 2004;22:185-95.  
 7 Assendelft WJJ, Rikken SAJJ, Mel M, Schoonheim PL, Schoemaker PJ, Dijkstra HR, et al. NHG guidelines for epicondylitis [in Dutch]. *Huisarts Wet* 1997;40:21-6.  
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## Families with disabled children

*Social and economic needs are high but remain largely unmet*

The profile of disabled children in the United Kingdom is changing. More disabled children and young people live in the UK than ever before (about 770 000 according to criteria defined in the Disability Discrimination Act), and the number of children with the most severe or complex needs—such as those with autistic spectrum conditions or with complex health and nursing needs—is also increasing. The needs of families with a disabled child, which involve input from professionals working in many different agencies, are often unmet. This situation will continue unless efforts are made within the opportunities provided by new child and health service policies and structures (such as the Common Assessment Framework for Children and Young People; [www.everychildmatters.gov.uk/deliveringservices/caf/](http://www.everychildmatters.gov.uk/deliveringservices/caf/)) to give families better support.

Around 55% of families of disabled children live in poverty; they have been described as “the poorest of the poor.”<sup>1</sup> It is within these constrained financial circumstances that families have to meet costs associated with bringing up a disabled child, which are estimated to be three times those of bringing up a non-disabled child.<sup>2</sup> Unlike in other families, paid work is not the potential solution. The child’s care needs, multiple appointments with healthcare professionals, and lack of child care affect parents’ ability to work. Mothers with disabled children are much less likely to have paid employment than other mothers.<sup>3</sup> This

means that many families are, to a greater or lesser extent, reliant on benefits. Indeed, state benefits are the sole source of income for 90% of lone parent families with a disabled child.<sup>3</sup> Current disability benefits do not meet the additional outgoings associated with having a disabled child.<sup>2</sup> In addition, it is the most disadvantaged families (including those from some minority ethnic groups) who are least likely to apply for the main disability benefit for families with a disabled child (disability living allowance).<sup>4,5</sup> Such families are also less successful when they do apply.<sup>4</sup>

Parents with disabled children have higher levels of stress and lower levels of wellbeing than parents with non-disabled children. Factors influencing levels of stress include the child’s sleep and behaviour problems, families’ material resources, parents’ employment situation, social support, unmet service needs, and parents’ coping strategies.<sup>6</sup> Some interventions have improved children’s sleep and behaviour problems and parental stress.<sup>7-9</sup> However, many parents report that they want but do not receive help in these areas.

Living in suitable housing and having appropriate equipment to assist with activities of daily living are also key factors promoting families’ wellbeing. Yet most families report problems with their housing<sup>10</sup> and unmet needs for equipment.<sup>11</sup>

Disabled children and their families often lack suitable local leisure facilities and accessible transport, and

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