Treatment options for tennis elbow

Many physicians are skeptical about using corticosteroid injection to manage treatment for workers and other patients suffering from lateral epicondyle tendinopathy (tennis elbow). These doubts are well founded, based on compelling evidence regarding the long-term outcomes for tennis elbow sufferers who are being treated with corticosteroids.

Manual therapy versus injections

In February 2013 the results of a clinical trial by Coombes and colleagues entitled, "Effect of corticosteroid injection, physiotherapy, or both on clinical outcomes in patients with unilateral lateral epicondylalgia: A randomized controlled trial," were published in the *Journal of the American Medical Association*.[1]

In this trial, 43 patients with chronic tendinopathy randomly received corticosteroid injection, 41 received placebo injection, 40 received corticosteroid injection plus physiotherapy, and 41 received placebo injection plus physiotherapy. Patients receiving corticosteroid injection—with or without physiotherapy treatment—were found to have a greater rate of recurrence of their condition at 1 year (54% versus 12% in the placebo injection group).

The key finding of the study was that although corticosteroids reduced pain for these patients as early as 4 weeks, they were 4 to 5 times more likely to be worse off in the long run. By contrast, the group that received placebo injections combined with physiotherapy experienced a substantial improvement in pain after 4 weeks, with no worsening in the rate of recurrence, compared with those receiving the placebo injection alone. In this clinical trial, physiotherapy treatment consisted of a previously described combination of specific exercises and manual therapy.[2]

Physicians should feel justified in avoiding corticosteroid injections for the treatment of lateral epicondyle tendinopathy, and should alternatively consider a proven rehabilitation regime that incorporates specific exercises and manual therapy techniques.

The dramatic results of this study are not unique. They are, in fact, consistent with a substantial body of evidence summarized in a 2010 *Lancet* meta-analysis, which highlighted the worst long-term outcomes associated with corticosteroids from a number of clinical trials.[3]

A toolkit of treatment options

Despite the research findings, it may not be sufficient to reassure patients with lateral epicondyle tendinopathy that their condition is usually self-limiting within 8 to 12 months, and that ongoing symptoms do not necessarily signify ongoing tissue damage. Most patients would prefer to receive a list of treatment options that will hasten their recovery without increasing the risk of recurrence.

To learn more about treatment options for tennis elbow, physicians can access free online resources on the topic. A group of BC-based researchers and clinicians developed an online toolkit which can be found at http://physicaltherapy.med.ubc.ca/research/physical-therapy-knowledge-broker/projects/lateral-epicondyle-tendinopathy-let-toolkit. The site was designed by physiotherapists primarily for the use of the profession. However, general practitioners can also use the toolkit to guide their patients through a variety of treatment options.

The Lateral Epicondyle Tendinopathy Toolkit includes the following components:

- A summary of evidence for physical therapy interventions that include physiotherapist-applied manual therapy, exercise, orthotic devices, and taping.
- Details of individual articles summarizing published evidence for commonly used physiotherapy interventions, and emphasizing the findings of systematic review and randomized controlled trials where applicable.
- Treatment algorithms designed to manage patients' and clinicians' expectations about the time frame for recovery, and to determine the best forms of early intervention—namely active rehabilitation, with or without manual therapy.

The online toolkit also includes a series of appendices. Each of these provides detailed treatment information, such as the clinical evidence supporting each treatment, descriptions and images of recommended manual therapy techniques, specific exercises

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This article is the opinion of WorkSafeBC and has not been peer reviewed by the BCMJ *Editorial Board.*

ble for looking at the medical records. An auditor provides assistance and is responsible for the overall conduct of the audit.

Objectives of the audit are to determine whether:

- Clinical records exist to support that services were rendered for the dates of service that claims were paid.
- Complete and legible clinical records were maintained by the medical practitioner.
- Services rendered were benefits under the Medicare Protection Act.
- Fee items claimed were consistent with the services described in the clinical records.
- Services claimed were provided by the practitioner.
- Services claimed did not overlap with alternate payment arrangements.
- Beneficiaries were not extra billed for benefits under the Medicare Protection Act.
- Potential quality of care concerns existed.
- Patterns of practice or billing (including service frequency) were justifiable.

An audit report is completed and submitted to the Audit and Inspection Committee. If the audit uncovers evidence of an unjustified pattern of billing, the Audit and Inspection Committee forwards the audit report to the MSC with a recommendation that the MSC pursue recovery from the physician for any inappropriate billings. Any potential quality-of-care issues that may have been observed in the audit are reported to the College. The practitioner has a right to a hearing before the MSC makes a decision about recovery. Most practitioners ask for a hearing but also elect to participate in a voluntary alternative dispute resolution process, which often leads to a negotiated settlement that is acceptable to the physician and the MSC.

If an agreement cannot be reached through the alternative dispute resolution process, or if a physician elects to forgo the process, the hearing requested by the physician will proceed before an audit hearing panel established by the MSC.

The audit hearing panel includes representatives of the government, the medical profession, and the public. It is a quasi-judicial body that has authority to make an order for recovery. Orders are filed with the BC Supreme Court. Physicians have access to support from the Canadian Medical Protective Association for legal assistance with the alternative dispute resolution and/or audit hearing process.

Notwithstanding the formal hearing process described above, most cases are settled through the alternative dispute resolution process.

The POPC is pleased to receive comments from practitioners. Please write to the committee at:
Physician and External Affairs
British Columbia Medical Association
115–1665 W Broadway
Vancouver BC V6J 5A4
604 736-5551 or 1 800 665-2262

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and types of braces, taping techniques, and an overview of common medical and surgical interventions. In particular, physicians may appreciate viewing Appendix C, which provides photos and descriptions of standardized exercise protocols deemed effective for treating tennis elbow. These can be downloaded and printed as patient handouts.

In short, physicians should feel justified in avoiding corticosteroid injections for the treatment of lateral epicondyle tendinopathy, and should alternatively consider a proven rehabilitation regime that incorporates specific exercises and manual therapy techniques.

—J. Robinson, MD
WorkSafeBC Medical Advisor
—A. Hoens, BScPT, MSc
Clinical Professor,
Department of
Physical Therapy,
UBC Faculty of Medicine
—A. Scott, RPT, PhD
Assistant Professor,
Department of
Physical Therapy,
UBC Faculty of Medicine

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3. Coombes BK, Bisset L, Brooks P. Efficacy and safety of corticosteroid injections and other injections for management of tendinopathy: A systematic review of randomized controlled trials. Lancet 2010;376 (9754):1751-1767.