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ORIGINAL ARTICLE

Treatment practice in chronic epicondylitis: A survey among general practitioners and physiotherapists in Uppsala County, Sweden

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Abstract

Objective. To investigate treatment practice among general practitioners (GPs) and physiotherapists (PTs) in chronic epicondylitis of 3 months' duration or more. **Design.** Postal survey. **Setting and subjects.** All 129 GPs and all 77 PTs at 35 primary health care centres in Uppsala County, Sweden, received the questionnaire. **Main outcome measures.** Proportion of responders using various treatments (five specified alternatives + open question). **Results.** The questionnaire was answered by 70% of the GPs and 61% of the PTs. Ergonomic counselling, stretching, and orthotic devices were common, and used to a similar extent by GPs and PTs. Acupuncture was also common, but less so among GPs than PTs. Transcutaneous electric nerve stimulation was used by relatively few GPs and PTs. The open question revealed that dynamic exercise, particularly eccentric, was used by most PTs but only one GP. A majority of GPs prescribed sick leave and anti-inflammatory treatment with an NSAID or cortisone injections. **Conclusion.** A large number of treatment methods in chronic epicondylitis were reported, none of which is properly evidence-based and some of which are even known to be ineffective. There is a need for randomized controlled studies of potentially effective treatments in this condition.

Key Words: Chronic, epicondylitis, survey, tennis elbow, treatment

Lateral epicondylitis, or tennis elbow, is characterized by pain at the lateral epicondylus of the humerus and pain on resisted dorsiflexion of the wrist [1]. The incidence in the general population is estimated at 1–3% per year [2,3]. Women are more often affected than men, with a peak prevalence at age 42–44 of 9% and 3%, respectively [2]. Repetitive strain and heavy manual labour increase the risk of being affected [4–7]. Some 10–30% of the patients will be on sick leave for a mean period of 12 weeks [1].

Over 40 different treatments have been described [8], reflecting that no single treatment is clearly effective in the majority of patients. Since inflammation exists in the acute stage [9–12], but is absent in the chronic [12–14], it is likely that treatments should be different in different stages of the disease. For example, anti-inflammatory treatment can be expected to be effective in acute epicondylitis, but not in chronic. Many studies have been done to

Many treatments for chronic epicondylitis (tennis elbow >3 months) have been suggested, but little is known about the extent to which they are used. This survey showed that:

- General practitioners and physiotherapists in Uppsala County, Sweden, used several treatments to a similar extent, but dynamic exercise was used almost exclusively by physiotherapists.
- Most general practitioners used anti-inflammatory treatment which is not evidence-based in the chronic stage.
- Randomized controlled studies are needed to evaluate potentially effective treatments in chronic epicondylitis.

evaluate suggested treatments for epicondylitis. Unfortunately the majority are of insufficient quality

and do not allow firm conclusions on treatment efficacy [15]. Thus, further studies on therapeutic measures are needed.

A thorough search in bibliographic databases provided no information on the extent to which various therapeutic alternatives are actually used. This survey was done to assess treatment practice in chronic epicondylitis (duration more than 3 months) among general practitioners (GPs) and physiotherapists (PTs) in primary healthcare in an area in central Sweden.

Material and methods

The survey was done in Uppsala County, Sweden, located north of Stockholm and consisting of urban as well as rural areas with the city of Uppsala as the main centre. A postal questionnaire regarding therapeutic methods used in patients with chronic epicondylitis was sent to all 129 GPs and all 77 PTs working in 35 primary healthcare centres within a radius of approximately 60 km from Uppsala. The recipients were asked to respond to the question "How would you treat a patient with tennis elbow of more than three months' duration?" by ticking one or more of the following five given alternatives: ergonomic counselling, stretching, acupuncture, orthotic devices or transcutaneous electric nerve stimulation (TENS), and a number of open-ended alternatives where any other method(s) used could be listed. In addition, GPs were asked to indicate the use of non-steroid anti-inflammatory drugs (NSAIDs), cortisone injections and prescribed sick leave. No reminders were sent to non-responders. The questionnaire was returned by 90 (70%) GPs and 47 (61%) PTs. The exact 95% confidence

intervals (CI) for the percentages of responders using the different therapeutic methods were calculated according to Clopper & Pearson [16]. This survey is part of a research project approved by the Research Ethics Committee at the Medical School of Uppsala University.

Results

The results of the survey are given in Table I. More than half of the GPs and PTs used ergonomic counselling, stretching, and orthotic devices. Acupuncture was also common, but less so among GPs than PTs. Transcutaneous electric nerve stimulation was used by relatively few GPs and PTs. The open question revealed that dynamic – particularly eccentric – exercise was used by most PTs, but only by one GP. A majority of the GPs prescribed sick leave and anti-inflammatory treatment with an NSAID or cortisone injections.

Discussion

The extent to which various treatments in chronic epicondylitis are actually used in clinical practice seems mainly unknown, and no report on this subject was found in a bibliographic search. Thus, the present investigation provides new and interesting information. The results must be interpreted cautiously, however, taking account of a number of circumstances. Since the survey was limited to a certain geographical area of Sweden, with a response rate of 70% among GPs and 61% among PTs, the results should not uncritically be generalized. The questionnaire was intentionally made as simple as possible in an attempt to achieve the best possible

Table I. Treatment practice in chronic epicondylitis according to responses to a postal survey

	General practitioners (n = 90)			Physiotherapists (n = 47)		
	n	%	95% CI	n	%	95% CI
Specified alternatives						
Ergonomic counselling	81	90	82–95	44	94	82–99
Stretching	70	78	68–86	45	96	85–99
Orthotic device	63	70	59–79	24	51	36–66
Acupuncture	41	46	35–56	40	85	72–94
TENS	9	10	5–18	12	26	14–40
Open questions						
Referral to physician	2	2	0–8	2	4	1–15
Referral to physiotherapist	10	11	5–19	–	–	–
Dynamic exercise	1	1	0–6	29	62	46–75
Eccentric	1	1	0–6	25	53	38–68
Other	0	0	0–4	4	9	2–20
Deep friction massage	1	1	0–6	9	19	9–33
Other treatments	8	9	4–17	9	19	9–33

response rate. This might have led to some under-reporting of treatments other than those explicitly asked for. However, this is not likely to explain the differences observed between the two groups of health professionals. The survey gives information about the proportion of GPs and PTs who use a certain treatment, but says nothing about how often they are actually used. Neither does it tell us about the use of combination therapy, although it is likely that both GPs and PTs use combinations of treatments in individual cases.

Dynamic exercise, particularly eccentric, was used by a majority of the PTs despite little evidence to support its efficacy in chronic epicondylitis [15]. It is likely that some promising reports in recent years on the efficacy of this kind of training [17,18] may explain its current popularity among Swedish PTs. However, there is a clear need to investigate this kind of treatment in randomised controlled trials.

A majority of the GPs prescribed sick leave, NSAIDs, and injections of cortisone. Sick leave may allow rest for the affected tissues, which can be of value in the acute inflammatory stage of epicondylitis, but will do little good in the chronic state. In cases where work cannot be continued because of pain, great care should be taken to activate and rehabilitate the patient. As there is virtually no inflammation present in the chronic stage, the use of anti-inflammatory treatment must be questioned [19].

In addition to the medical rationale, "cultural" factors may be part of clinical decision-making. These include tradition in the education and training of staff, the healthcare organization, availability of equipment and other resources, and patients' expectations. Indeed, cultural factors seem important to explain why medical personnel select certain treatments, and why treatment guidelines may differ considerably between countries [20,21]. Differences in cultural factors may also explain some of the differences between GPs and PTs that were observed in this survey.

In conclusion, a large number of treatment methods were used in chronic epicondylitis in primary healthcare in the central part of Uppsala County, Sweden. None of the methods used is properly evidence-based and some are even known to be ineffective. The diversity of methods used therefore reflects the need for randomized controlled studies of potentially effective treatments in this condition.

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