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Treatment of shoulder complaints in general practice: long term results of a randomised, single blind study comparing physiotherapy, manipulation, and corticosteroid injection

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Descriptive studies have shown that shoulder complaints can be persistent and recurrent, requiring long term evaluation of treatment.[1] Unfortunately, in most randomised studies comparing treatments for shoulder complaints the study period varies from a few weeks (trials of non-steroidal anti-inflammatory drugs) to 3-6 months (injection therapy and physiotherapy trials).[2–4])

In a trial in 1994-5 of treatment of shoulder complaints in general practice we showed that in a study period of 11 weeks, injection therapy with a corticosteroid was superior to physiotherapy and manipulative therapy in the patients whose complaints originated from the structures of the glenohumeral joint, the subacromial space, or the acromioclavicular joint (synovial group).[5] In the patients whose complaints related to functional disorders of the cervical spine, the upper thoracic spine, or the adjoining ribs (shoulder girdle group), manipulation was superior to physiotherapy. To assess the various treatments in the long term, we re-examined these patients two to three years after the original study.

Patients, methods, and results

In September 1997 we sent a questionnaire to all 172 patients who had taken part in the earlier trial, inquiring about persisting, recurrent, or new shoulder complaints since the initial treatment. Diagnostic procedures and further treatment were assessed. We asked patients with current complaints to indicate if they felt "cured" and invited those who did not feel cured for a physical examination. Details about the assessment of the patients, the definition of the diagnostic categories, feeling cured, and the treatments given are described elsewhere.[5] Statistical testing was done with the χ^2 test.

We received 130 (76%) questionnaires that could be evaluated. The distribution of the patients' characteristics across the five treatment groups was similar to the original study. A substantial proportion (64%) of the non-respondents had paid jobs. The table shows that 29/40 (73%) patients in the shoulder girdle group had experienced a shoulder complaint at some time since the earlier trial. Thirteen of the 22 (59%) patients in the physiotherapy group had current complaints, of whom 8 (62%) did not feel cured. In the manipulation group 6/18 (33%) patients had current complaints, of whom 4 did not feel cured. Most (18/19) patients with current complaints had had previous complaints. No significant differences were found between the two treatment groups for the items examined. Only two patients reported referral for specialist assessment.

In the synovial group 47/90 (52%) patients had experienced a shoulder complaint at some time since the earlier trial. Twenty two (24%) patients had current complaints, of whom 21 (95%) did not feel cured. Nineteen (21%) patients had consulted their general practitioner, and 12 (13%) patients were referred to a specialist, in most cases an orthopaedic surgeon. No significant differences were found between the three treatment groups for the assessed variables.

Of the 33 patients not feeling cured, 25 attended for a physical examination. Ten (40%) patients seemed to have changed diagnostic category.

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Characteristics of 130 patients who took part in 1994-5 trial who were followed up in 1997

	Shoulder girdle group		Synovial group		
Complaints and treatment	Manipulation (n=18)	Physiotherapy (n=22)	Injection therapy (n=38)	Manipulation (n=26)	Physiotherapy (n=26)
Complaint at some time since earlier trial	12	17	18	18	11
Current complaints	6	13	9	7	6
Previous complaints and current complaints	5	13	9	7	5
Not feeling cured	4	8	9	7	5
Consulted general practitioner	6	12	9	13	6
Referred to specialist	0	2	5	1	6
Supplementary examination	0	2	3	2	3
Treatment after finishing trial:	6	11	10	11	8
Physiotherapy	3	5	5	1	3
Injection therapy	0	3	5	9	5
Manipulation	2	2	1	0	1
Other	2	2	2	2	3
Limitations in activities in daily living	9	11	20	11	13
Self treatment	8	14	19	12	13

No significant differences were found between the treatment groups of the two diagnostic groups with χ^2 testing. The separate categories of the treatment after finishing the trial could not be tested because of small numbers in each category.

Comment

The positive results of both injection therapy and manipulation versus physiotherapy in the original trial seemed to be short term effects. In the long term no significant differences between the various treatment groups were found. As many as half of the patients experienced recurrent complaints.

Shoulder complaints are not necessarily troublesome for all patients. Consequently, some patients feel cured despite their current complaints. Also, 64% of the non-respondents had paid employment; does this suggest that they were too busy to consider their shoulder complaint as anything more than minor?

The diagnostic categories of shoulder pain changed over time, which might be important for the therapeutic strategy.

Considering that a substantial proportion of patients with shoulder complaints experienced long term or recurrent complaints, new studies should analyse the factors that cause persistent shoulder complaints. Only with this knowledge can successful long term therapeutic strategies be developed.

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