MEDICAL PRACTICE

Back Pain

Manipulation in back disorders

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Manipulation—literally, use of the hands—encompasses a variety of techniques, some of which should really be described as mobilisation. This article refers to techniques applying either directly or indirectly a high velocity, small amplitude, straight or rotational thrust to a spinal segment beyond its normal range of movement.

Blind trials may not be the best way to assess this form of treatment, and clinical pharmacology provides a precedent for the validity of uncontrolled assessments. None the less, some more or less well controlled clinical trials have been published. The first problem is choosing patients who might be expected to respond; the second is to find objective, measurable features.[1] Paris advocated a precision in diagnosis that does not exist,[2] and most workers accept that they are treating "non-specific back pain,"[3] though it conforms to a particular pattern of history and signs with asymmetrical painful limitation that denotes "mechanical derangement."[4] In a retrospective survey of 104 patients Morrison attempted to define a type of back problem that responded well to manipulation and found that all the patients had back pain of a "mechanical pattern," usually with some pain in the leg, little limitation of straight leg raising, and no neurological deficit. Pains of sudden and of gradual onset and of long and short duration were evenly distributed.[5]

The findings from clinical trials and clinical experience agree that manipulation works best in pain of short duration.[6-8] Its effectiveness tends to be all or nothing: Cyriax stated that manipulation was successful quickly or not at all, and this agrees with clinical experience.[9] Most published trials have shown that patients treated by manipulation improved more quickly than controls[3 6-8 10-14] (J A Mathews, MD thesis 1985, University of Cambridge). Sims-Williams *et al* noted that most sufferers from back pain obtained relief without any specific treatment; then conceded that manipulation might hasten improvement but thought it made no difference to the long term prognosis.[3 11] This latter point has clouded the conclusions of some trials, as assessments which do not take place in the early stages of treatment will miss much of the benefit of manipulation.[3 10 11 15]

Mathews—in what should become the definitive controlled trial of manipulation for backache—obtained daily assessments of relief of pain for the first two and a half weeks in 58 patients without dural pain and 233 patients with dural pain in association with mechanical backache (MD thesis 1985, University of Cambridge). In the first group there was a striking early improvement during the first five days in the manipulated patients (using Cyriax techniques[16]) compared with the control group given infrared radiation. The benefit tended to level out during the second week. In the second group the statistically significant benefit of manipulation was seen during the second to eighth days and was sustained through to two weeks. Swezey reviewed manipulation including its possible pathophysiological mechanisms and the nature of the audible and palpable click that occurs during treatment, and concluded that manipulation might shorten the recovery time in a few patients but that they could not easily be predicted by clinical criteria.[17]

Manipulation is a practical skill, easily learnt, which is well within the compass of the motivated general practitioner. Given that patients with recent onset of mechanical back pain may respond well, it is the general practitioner who will see them first—and so best be able to help them quickly. Courses including manipulation (lasting about a week) are run for doctors and physiotherapists by the Cyriax Foundation and by the Society of Orthopaedic Medicine, and intensive weekend courses for doctors are held by the British Association of Manipulative Medicine. Private courses are also available. These courses provide clinicians with the knowledge and the necessary manual skills to start treating patients safely. Doctors will then need at least six to nine months of regular practice to begin to feel that they are treating the right patients and doing so appropriately—and years to become fully experienced and confident. Refresher courses are available from the organisations quoted. The London College of Osteopathic Medicine provides a one year part time course for doctors, but it aims at teaching a whole new

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system of medicine and its graduates will usually immerse themselves in this, while medical manipulation is simply one method of treatment among many others.

Medical manipulation should be given only a few times—once may be sufficient. The aim is to hasten recovery, usually by a few days, allowing patients to go back to work or normal activity sooner. There is no expectation of "cure" or the prevention of recurrences or any alteration in the long term prognosis. The reaction to a session of manipulation may be an immediate and sustained improvement in pain or range of movement, or both, sometimes after a transient increase in soreness due to the treatment. A relapse may occur in a day or two, but this often responds to one or more further sessions of manipulation. Some patients are not helped, and a very few are made temporarily worse.

There are risks to manipulation, as with any interventional treatment.[18-20] Manipulation under general anaesthesia should be avoided,[18] and patients with clear contraindications should be left alone.[21] Careful attention to contraindications[9] and a high index of diagnostic suspicion with radiography and blood tests where appropriate before treatment will ensure that these simple and effective procedures retain their great safety.

Manipulation for backache rests on an established case and provides for back sufferers "a clinically worthwhile hastening of relief" (J A Mathews, MD thesis, 1985, University of Cambridge).

I thank Dr John Mathews for lending me a copy of his MD thesis and the late Dr James Cyriax, who taught me to manipulate.

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Osteopathy in back trouble

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Osteopathy is practised in many countries throughout the world, yet (with the notable exception of the United States), it is rarely included in the orthodox medical services. The lack of scientific research which has kept the discipline among the ranks of "alternative" medicine has been discussed elsewhere, but this categorisation may well be inappropriate for osteopathy where back trouble is concerned.[1] Heterodox disciplines are usually based on belief in an alternative explanation for illness, but the osteopathic management of back trouble asks for no such belief—at least as practised in Britain by members of the Register of Osteopaths.

The lack of scientific evidence for the efficacy of osteopathy as a treatment for back pain should be seen in the light of similar deficiencies for other conservative treatments. The multiplicity of treatments highlights our inability to offer patients managements which have predictable results on the clinical course of their condition. Osteopathy may be considered as one of several manipulative treatments on offer to such patients, though some believe it should really be regarded a system of diagnosis and treatment laying emphasis on structural integrity.[2]

A retrospective study of the practice of members of the Register of Osteopaths in Britain showed that over half of their patients presented with low back pain and that their patterns of age, sex, and occupation were similar to those reported in orthodox practice.[3] Diagnostic labels could not be assigned, though half the patients reported associated symptoms in their legs. Some 40% presented within one month of the onset of back pain, but a third had had their complaint for over a year. The conditions treated seemed to cover the range seen in general practice,[4] and some 6% of patients were rejected as being "unsuitable for treatment," though the criteria for rejection were not recorded. The study showed that the osteopaths carried out a detailed structural and functional assessment (similar to that described by Stoddard[5]) together with conventional orthopaedic and neurological tests. Radiographic examination and biochemical tests were used infrequently, but as about two thirds of patients had previously consulted a doctor[6] some preliminary screening seems likely already to have been carried out.

The treatment given by osteopaths is largely manual, consisting of a wide range of soft tissue stretching and relaxation techniques as well as manipulative thrusts to spinal joints.[7] They exercise considerable discretion in the use of manipulative thrust techniques, and they make little use of adjunctive treatments such as exercises, traction, and corsets.[3]

The evidence shows that osteopathic management of back trouble as practised by registered practitioners in Britain consists of a method of assessment and manual treatment which is used largely on patients with "mechanical" back ailments. These treatments seem likely to be safe in view of the practitioners' use of orthodox diagnostic procedures and of most patients' prior medical contact. Their efficacy, however, remains in doubt. The only reported controlled trial of osteopathic treatment for back pain showed its results to be no better than those of short wave diathermy or placebo.[8] A recent review of the physiology of joint dysfunction,

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