

Australian Association of Musculoskeletal Medicine

Cervical Manual Therapy – is it all it's cracked up to be?

Myths abound amongst consumers and doctors alike as to the relative merits and dangers of manual therapy (MT) to the neck. In the press it's either portrayed as a miracle cure (for anything from infant colic to asthma) or a killer manoeuvre. Some doctors advocate manual therapy as a cure for migraine. Conversely, other doctors see no role for neck manipulation in medical practice. The truth, as in most matters, lies somewhere in between the extremes.

It is important to define what is meant by MT. Simply, it is the application of a mechanical force to the spine or paraspinal tissues. The force is usually either a high velocity thrust manipulation (HVTM) or mobilisation (eg oscillatory, muscle energy, myofascial release)

General practitioners are faced with having to advise patients as to the wisdom of considering cervical manual therapy as an option in the management of some medical conditions. Often patients will tell their GP that they heard from friends that spinal manipulation might be useful for their malady. Some health providers actively promote MT as a total health maintenance package.

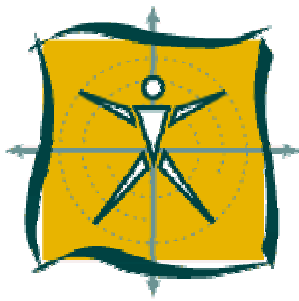
Recently I was asked to give a second opinion to some parents who had been told by another doctor that their 5-year-old son could have his developmental delay treated effectively with neck manipulation.

Fortunately I had at my disposal a comprehensive summary of all the proven indications for cervical MT. Developmental delay was definitely not an indication. Considering the amount of cervical spine manipulation that is performed in this country (over a million manipulations per year) perhaps this information should be made available more readily to doctors and to undergraduates.

GP's themselves have had increasing exposure to manual therapies over the last 15 years. In the late 80's there were the Kenna/Murtagh courses that were immensely popular especially with the rural doctors. In the 90's the availability of post-graduate university diplomas in musculoskeletal medicine have become regular training grounds for manual therapy techniques. Pharmaceutical companies have even jumped on the bandwagon by employing the Queensland "Quatros Amigos" doctors (four entertaining musculoskeletal physicians) to liven up their conference weekends with practical spinal manual therapy workshops.

So where does the truth lie for the efficacy of manual therapy in primary practice? In the neck there is evidence that MT may be useful for the following conditions:

- 1) Neck pain
- 2) Cervicogenic headache
- 3) Migraine
- 4) Whiplash



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How good is the evidence?

For acute neck pain, there is evidence from RCT's that MT is an option for short-term pain relief. Long-term benefits remain unproven. There is no good evidence that HVTM is more effective than mobilisation.

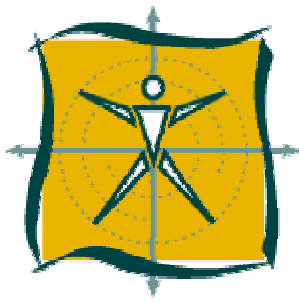
For acute whiplash, there are a number of studies that have demonstrated the effectiveness of MT in combination with other treatment modalities (eg relaxation training, exercises, psychological support, and analgesia). This combination of therapies is known as multimodal therapy. It is more effective than ultrasound, pulsed electromagnetic therapy, TENS and iontophoresis.

Cervicogenic headaches are a common cause of pain in general practice, which is often overlooked. There is evidence from a randomised controlled trial that HVTM resulted in decreased analgesic requirements, decreased number of headache hours per day and decreased headache intensity per episode compared with control treatment (massage and laser). Mobilisation has been shown to be better than the application of ice packs over a two-week period. Interestingly, MT has not been shown to be useful in tension-type headaches.

Migraine headaches are another area in general practice that are often a cause of grief for the patient and the practitioner. There has been much anecdotal support for MT as a migraine treatment but it is in the last 3 years that two RCT's have lent some credence to these claims. One trial showed HVTM to be as effective as amitriptyline in the prevention of migraine. The other showed benefit of HVTM over placebo (detuned interferential) for migraine frequency and duration, disability and medication use. There were, however, some methodological flaws in this study.

Overall then there is evidence that MT may be of some use to some of the patients in the above four categories. But what about safety? The risk of neurovascular compromise from HVTM to the cervical spine is well publicised. The incidence is low i.e. 1: 1,000,000, certainly lower than the 1:50 000 death rate from the use of NSAIDS.

Absolute and relative contraindications to HVTM are listed in Table 1. It should be noted that absolute contraindications to HVTM are considered relative contraindications to mobilisation.



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TABLE 1: Absolute and relative contraindications to cervical spine manual therapy.

Absolute Contraindications to HVTM at the Affected Level	Relative Contraindications to HVTM
Poor manipulative technique	Osteoporosis
Tumour (benign or malignant)	Bleeding disorders
Active infection	Anticoagulation
Active inflammation	Radicular pain
Instability following trauma	Radiculopathy
Vertebral fracture	Vertebro-basilar insufficiency
Vertebral fusion	Upper cervical spine in rheumatoid arthritis
	Upper cervical spine in Down's syndrome

GP's have the choice of learning MT themselves or developing a relationship with someone trained in manual skills (eg musculoskeletal physicians). In doing so they need to be aware of the group of patients who will most benefit from MT. These patients should be made aware of the option of manual therapy and it's relative merits. Likewise, it behoves GP's to be well aware of those they should not even consider referring to a manual therapist. The gatekeeper indeed needs the wisdom of Solomon.

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