

The *Straits Times* recently published a few commentaries on various types of alternative medicine in Singapore by journalist Dr Andy Ho. In one of the commentaries, Dr Ho wrote about the dangers of chiropractic neck manipulation, and criticised the local medical profession for not warning the public about these dangers. We reproduce two of the commentaries and SMA's response here.

21 January 2011

Perils of chiropractic neck manipulation

By Andy Ho, Senior Writer

A NEW law was passed in the new year to regulate allied health professionals such as physiotherapists. However, chiropractors were left out because they are alternative healthcare providers, Health Minister Khaw Boon Wan said.

Disappointingly, the local medical profession did not rise to the occasion to warn the public about the dangers of chiropractic neck manipulation. By contrast, in 2002, after a 20-year-old Canadian died following a chiropractic neck manipulation, 62 neurologists in that country jointly issued a public advisory against seeking this 'treatment'. Local doctors have no excuse: Strokes and deaths arising from neck manipulation have been reported in the medical journals for six decades now. In 2001, a large study published in *Stroke* found neck manipulation to be a leading cause of strokes in people under 45.

In this age group, the risk of a stroke was quintupled if one had seen a chiropractor in the preceding week. This is because chiropractic manipulation can cause a tear to develop in the inner lining of the vertebral arteries that supply blood to the brain. Blood then enters into the flap-like tear and clots there. This narrows the artery, which decreases blood flow to the brain. If the blood clot subsequently comes loose, it may travel into the brain to block a smaller artery, thus causing a delayed stroke.

The vertebral arteries are particularly susceptible to injury: As they traverse up the back of the neck, they go through holes in the sides of each neck vertebra. Thus, turning the neck can kink these arteries. And abrupt and forceful rotation of the head may tear their inner lining. Chiropractic neck manipulation may involve as much as a third of the force that hanging a man exerts on his neck. (In suicides by hanging, the vertebral arteries are indeed frequently damaged.)

A big and sudden tear in the vertebral artery lining can cause one to collapse on the spot. Tiny tears may see only mild symptoms developing, which worsen over time. If the tear is such that a clot forms over it, a stroke may set in days later should the clot dislodge itself.

The 2001 study noted earlier found that such vertebral artery lining tears were likely to occur in 1.3 cases for every 100,000 neck manipulations. Thus a chiropractor may honestly claim to have not seen even a single case in a lifetime of practice. After all, he would need to manipulate necks 300,000 times to have even a 95 percent chance of causing one such disaster.

In 2003, a study published in *Neurology* showed that patients under 60 found to have tears in their vertebral artery linings were more likely to have had neck manipulation in the preceding month.

A 2008 study, published in *Spine*, also showed that stroke patients under 45 were three times more likely to have had recent neck manipulation.

Is there any scientific basis to perform neck manipulation? Chiropractors claim that their 'science' was discovered in 1895 in Iowa, United States, when Daniel David Palmer supposedly healed a deaf man by 'adjusting' a bump felt on his spine. He surmised that it was misalignments of the vertebrae, which he called 'subluxations', that caused the body's innate capacity to heal itself to go awry. (By contrast, medical doctors use the term 'subluxation' to mean an incomplete or partial dislocation of a joint that can be seen on X-rays.)

To restore the body to health, such 'subluxations' had to be repositioned and adjusted through manipulation, Palmer reasoned. Hence 'chiropractic', a term he coined from two Greek words - *cheiro* and *praxis* - to mean 'done by hand'. A student of Palmer's later decided to add herbal remedies to his practice. This started a schism in the industry that remains to this day.

Those who remain just manipulators are dubbed 'straights', whereas those who also use other modalities like acupuncture, herbs, homeopathy, hypnotherapy and so on are called 'mixers'. Because of their continuing disagreement, chiropractors cannot agree on how to define their practice.

Some of them say that X-rays show up where these problem-causing 'subluxations' are while others feel that they may not always be seen. Some insist that these are indeed displaced bones but others define 'subluxations' very vaguely.

According to *Spin Doctors: The Chiropractic Industry Under Examination* (2003) by Paul Benedetti and Wayne MacPhail, 'chiropractors cannot agree on what they are treating, how they treat it, or what works, so they find it impossible to describe their scope (and standards of practice'.

Does it help at all? Published in *Spine* in 2004, a comprehensive review of large, randomised trials showed that manipulation alone was no better than physiotherapy. In the latter case, the neck joints of a patient are gently and passively moved through their full ranges by a scientifically trained physiotherapist.

Meanwhile, what factors put one at special risk of developing a stroke as a result of chiropractic neck manipulation remain unknown. Anyone, especially if under 45, could be at risk.

But if you still insist on having your neck twisted, be aware that should you develop sudden neck pain, or your vision becomes disturbed, or you feel nauseous after neck manipulation, do not go back to the chiropractor for more neck twisting. Just see a doctor immediately.

22 January 2011

DAEDALUS

Indefensible ideas behind homeopathy

By Andy Ho, Senior Writer

HOMEOPATHY is integrated into the national health-care systems of France and Britain. The fact that their governments pay for this mode of alternative healthcare seems to imply it must have been well established beforehand that it works.

However, in October 2009, when queried by the House of Commons, the British Department of Health stated that 'no scientific evidence was examined in drawing up the National Rules Scheme', which is the British licensing regime for homeopathic treatment.

Most of us tend to conflate homeopathy with herbal or 'natural' remedies. If so, you might be quite taken aback by the mystical claims some make on its behalf.

The present system called homeopathy was first founded by a German called Samuel Christian Hahnemann (1755-1843) who ingested some cinchona bark. This had long been identified as a cure for malaria as it contains quinine. When Hahnemann developed an allergic reaction to the bark, it caused symptoms that resembled malaria, such as fever, chills and rigors. Based on this observation - his first and only 'correct' one - he deduced that there were many natural products that induced symptoms resembling those of a given disease.

If so, such substances needed to first be identified by direct experimentation. He thus fed his family and himself various things used as remedies in his day and recorded any symptoms he thought were induced. To this day, his compilation of such symptoms is still used.

Now, if you have certain symptoms in your present illness, the substance that produces the same symptoms could be used as a cure if it were made into a solution. This is because that substance imprints a mirror image - and thus the inverse - of itself on the water used.

As the inverse, the image's effects must be the reverse of those of the offending substance. Hence its curative powers.

But if you took it unattenuated, it would surely only cause symptoms like those you already suffered from. So it should be diluted until it no longer evokes symptoms when ingested. Thus, the dilution process is key; serial dilutions supposedly lead to increased potency.

The preparation is to be diluted tenfold (1:10) or a hundredfold (1:100) at each step, with the steps repeated several times - up to 200 times, say. But at such a rate of dilution, just one molecule of the substance or none of it will remain (according to a law in chemistry

involving something called Avogadro's number).

Between each dilution step, the concoction must be vigorously shaken ('succussions') many times to increase its potency. Hahnemann believed that the dilution process - augmented by the succussions - set free some vital force held inside the offending substance. Thus even after there was none of it left in the solution, the freed force remained in it.

Not all homeopaths today would defend these ideas that Hahnemann championed, for they are scientifically indefensible. Instead, homeopaths might simply assert that the mechanisms by which their remedies work are quite unimportant as long as people are cured. But do they really work?

'A systematic review of systematic reviews of homeopathy' published in the British Journal of Clinical Pharmacology in 2002 concluded that 'no condition... responds convincingly better to homeopathic treatment than to placebo...'. This was updated by the same reviewer in a study published in the Medical Journal of Australia last year, which also concluded that 'homeopathic medicines have no effects beyond placebo'.

This should not surprise us since there is no viable mechanism for water to have memories or carry information. No bona fide scientist has proposed a plausible one and none has ever been demonstrated experimentally.

In fact, if water memory did exist, then every soluble substance would have dissolved in the world's total stock of water at some point in history. In such a scenario, any water we drink would have the memories of these substances and thus have an infinite range of effects on us. Under these circumstances, the effect of any homeopathic remedy would be overwhelmed completely by a deluge of water memories.

At any rate, a homeopathically prepared remedy would have whatever active substance it supposedly carries already significantly diluted. If so, the concoction should be mostly water or whatever the inert solvent is. This should ensure that homeopathic remedies are not toxic. That is they are safe even if useless.

In fact, the Homeopathic Reference Manual (Natura-Bio) states: 'In homeopathy, there is no harm in taking the wrong medicine or too much medicine.' That is, homeopathic preparations are basically inert.

But if this were so, whence their capacity to treat specific diseases? This is a logical dilemma. In his book, *Homeopathy: How It Really Works* (2004), Jay Shelton says that homeopathy does work - because it is simply an elaborate placebo system.

However, it would be erroneous to conclude from this that all homeopathic remedies are inherently safe because they are so highly diluted, containing essentially nothing. Remember that unscrupulous hucksters might spike their homeopathic preparations with prescription painkillers or steroids, say. In such cases, serious toxicity may ensue. This being a possibility, smart consumers should simply get rid of any and all homeopathic remedies which they might have at home.

15 February 2011

FORUM**Unwise to criticise alternative medicine, says SMA**

DR ANDY Ho wrote that he was disappointed with the local medical profession for not warning the public about the dangers of chiropractic neck manipulation (“Perils of chiropractic neck manipulation”; 21 Jan) and criticised homeopathy (“Indefensible ideas behind homeopathy”; 22 Jan).

His scathing commentary on acupuncture criticises the Singapore Medical Association (SMA) for suggesting that the ethical code of the Singapore Medical Council (SMC) be amended to allow medical practitioners to refer to traditional Chinese medicine (TCM) practitioners and acupuncturists (“Pinning down acupuncture: It’s a placebo”; 12 Feb).

While Western-trained doctors do warn their patients about the risk and safety profile of what they prescribe and voice their opinions on various kinds of alternative medicine to their patients, it is another thing to advocate that the local medical profession collectively criticise alternative medicine groups.

This is especially so when doctors and alternative medicine practitioners are seen to be competitors and criticising alternative medicine can be construed as self-serving.

Dr Ho’s column on Saturday failed to take SMA’s proposal to amend the SMC ethical code in context. When the current code was introduced, TCM

practitioners and acupuncturists were not state-registered. They are now.

We do not think doctors will refer widely to TCM practitioners even if the code is amended. However, patients do request from their doctors medical reports and summaries when they seek care from TCM practitioners. The present code disallows such formal communication. Amending the code will facilitate better communication between a patient’s various caregivers so that the patient’s interest is best served.

The SMA does not encourage its members to refer to alternative medicine practitioners. But we have to be realistic. They exist and are here to stay. Most public hospitals already offer acupuncture services. Several have TCM clinics on their premises.

Continuing this “iron curtain” of no formal communication between doctors and alternative medicine practitioners is impractical and anachronistic.

Finally, many alternative medicine forms are steeped in cultural and religious beliefs, such as TCM and ayurvedic medicine.

From the perspective of safeguarding social cohesion in Singapore, getting the local medical profession to collectively criticise various alternative medicine modalities is unwise.

In Singapore’s social context, journalists should not try to pit one group of caregivers against another. It is best for an impartial and respected body such as the Government to step forward to decide what is safe and unsafe for patients.

Dr Abdul Razakjr Omar
Honorary Secretary
Singapore Medical Association (SMA)

MARK YOUR CALENDARS

SMA Annual General Meeting

Date : 17 April 2011
 (Sunday)
 Time : 2pm - 4pm
 (Registration and lunch will start from 12.30pm onwards)
 Venue: Arthur Lim Auditorium, Level 2, Alumni Medical Centre

SMA Annual Dinner

Date : 14 May 2011
 (Saturday)
 Time : 7pm - 10.30pm
 Venue: Grand Ballroom, Grand Hyatt Singapore

SMA National Medical Convention

Come Grow Old with Me: Successful and Active Ageing in the Community

Date : 20 August 2011
 (Saturday)
 Time : 8.30am - 5.30pm
 Venue: Suntec Singapore International Convention and Exhibition Centre