

# Needles that bring relief from chronic pain

An elderly woman with neck pain sits with two lines of needles stuck into her naked back; an amputee who has suffered 22 years of constant pain lies groaning as his right buttock gets similar treatment; and a middle-aged woman with discomfort in several parts of her body has a row of needles protruding from her spine.

This may sound uncomfortable, but the practice could herald a revolution in chronic-pain relief. The work has begun quietly at Addenbrooke's Hospital, Cambridge, where a small team with limited NHS resources is pioneering a technique called intramuscular stimulation (IMS).

IMS, a needle technique that has been used in Canada and Sweden for many years, is often described as a "sort of scientific acupuncture". But instead of the "chi" energy and meridian lines of traditional Chinese medicine, it is concerned with the musculoskeletal system. The technique was developed from the 1970s onwards by the Canadian professor and pain specialist Dr Chan Gunn. Now two of his disciples have combined forces to show that IMS can have a dramatic effect in reducing chronic pain.

Dr Rajesh Munglani is medical director of the Pain Relief Service at Addenbrooke's. He is a consultant in anaesthesia and also head of a Cambridge University research team, and has spent much of his career studying "the molecular biology of pain". This has led him to practise some unusual techniques.

Thermocoagulation involves the insertion of a needle into the body, but this is an insulated needle down which an electric current is passed to heat the tip and

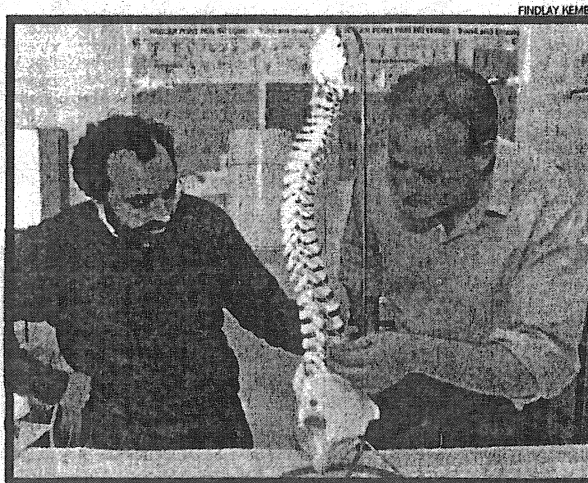
A pain expert and an osteopath report dramatic results with IMS therapy, says **Nigel Summerley**

"burn out" the problem nerve, thus stopping the transmission of pain. Munglani inserts his needles into the joints of the spine aided by a live X-ray monitor. Pulsed radio frequency (PRF) treatment also uses an insulated needle, but one that sends a 2Hz radio signal into the nerve and reduces the susceptibility to pain. The way in which this works is not completely clear, but it seems to stun the nerve and decrease sensitivity for long periods.

Two years ago, at the World Pain Congress in Vancouver, Munglani met Chan Gunn and, he says, "we had an amazing exchange of ideas". It was the first step towards making IMS part of the Addenbrooke's anti-pain arsenal. Thirty per cent of us have back pain from accidents, wear and tear, or natural degeneration. Some pain originates in the nerves, with the muscles then going into spasm to compensate; other pains come from the muscles; and in some cases nerves and muscles are bound up in a pattern of pain.

Whatever the nature of chronic pain, muscle spasm is often an integral part. IMS is based on a technique familiar to osteopaths, who induce relaxation in a muscle by tightening it and then letting go. The advantage with "needling" is that it can go deep into the body — sometimes several inches — to hit the right spot. A knotted muscle will "grab" the needle and after a while "let go" — and carry on relaxing after the needle has been removed.

An osteopath who saw the possibilities of IMS early on was Robin Shepherd, who began using it to great effect at his



Dr Munglani, left, and Robin Shepherd run a pain-relief clinic

practice in Surrey. When Munglani ran an IMS course for health professionals at Addenbrooke's, Shepherd attended and the two men felt they could work together: Munglani with his anaesthetist's background and obsession with getting closer to the roots of pain; Shepherd with his osteopath's skill at palpating to find the ex-

act points of problem muscle. Shepherd was so keen to pursue this partnership that he moved to the Cambridge area, where he divides his time between his work at Addenbrooke's and private practice. The Pain Relief Service operates five days a week, dispensing advice to patients and also educating nurses and other

health workers. But, due to limited resources, the Munglani and Shepherd double act performs only once a week.

On their clinic day, when Munglani concentrates on thermocoagulation and PRF, while Shepherd taps in IMS needles, they see patients with chronic pain, all of whom have to be referred by a GP or consultant. "I'm needle-phobic," says Victor Marsh, 40, "but I tried this because I was in so much pain." He lost his right arm in a motorcycle accident at the age of 18. He had lived with pain for years before coming to see Shepherd.

His original reason for seeking help was phantom pains in his missing limb, but by the time he got to Addenbrooke's he had developed severe pain in his right leg and lower back. Two IMS treatments had given him relief. Now he was back for a third session, with Shepherd inserting three needles into his right buttock — one going in about four inches. When another needle goes into his leg, just above the knee, he shudders with pain, and utters an agonised cry. "Yes, that's the spot," says Shepherd with a smile.

"After the treatment it's agony for a day," says Marsh, from Fulbourn, near Cambridge, "but then it's better. The needling does seem to make the pain easier."

For Peggy Harding, 55, from Willingham, near Cambridge, four or five IMS sessions last year freed up dreadful pain in her left leg and hip. Now, after a period of great stress, the pain has returned and affected neck and shoulder too. "It was so bad that I couldn't walk around a super-

market," she says. After Shepherd had put needles into her back, she said she felt sore but was sure that, on past experience, she would then feel better.

Katherine Kenny is in her late seventies. She came with severe neck pain that had plagued her for 10 years and found herself sitting with her head face down on a pillow and 10 of Shepherd's needles arranged in her upper back. "You've got wear and tear from overuse," Shepherd tells her. "You have relied on your shoulders for a long time. They have carried a lot of tension — while you have been caring for others and perhaps neglecting yourself." She nods in confirmation.

"Knowledge of anatomy is essential if you are going to practise IMS," says Shepherd. There are potential dangers. Areas around the front and side of the lower part of the neck, and at the centre of the base of the skull, are no-go zones. With the former there is the danger of pneumothorax (air entering the pleural cavity and the possibility of lung collapse), and with the latter of damage to the brain stem.

The needles stay in for a maximum of 15 minutes. Shepherd removes them when he can feel that the muscle is ready to "let go". A clinical trial of IMS is due to start shortly at Addenbrooke's with a comparative study of two groups of patients — one on IMS and one receiving "dummy" therapy. "It's an important therapy," says Shepherd. "But it needs some status and credibility before it can take off."

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