

# **news** *THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS*

**southwestern medical school - graduate school of biomedical sciences - school of allied health sciences**

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DALLAS--That real and yet elusive phenomenon of human existence, pain, is being treated at The University of Texas Southwestern Medical School and two affiliated hospitals with a variety of new techniques, including acupuncture.

Some intriguing successes, some less than positive results and some downright failures in the use of acupuncture have been tallied by Dr.Samuel J.Montgomery and Dr.Phulchand P.Raj, both members of the academic faculty in anesthesiology at the medical school.

"My impression is that about 60 per cent of patients we have done have had good symptomatic relief and about 20 per cent have had no relief whatsoever," commented Dr.Montgomery. Mixed results were noted in the final 20 percent.

Use of acupuncture is considered only after conventional methods fail. Actually, both Montgomery and Raj have been successful in perfecting the use of electronic stimulation of nerves to locate precise points for injection of chemical blocks. This is a new technique which has received considerable acclaim following its publication in a leading anesthesiology journal.

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first add pain

A whole battery of methods to alleviate suffering has been used by medical school faculty, including implantation of electrodes which suppress pain when controlled electrical current is induced in the system. This method has been used several years by Dr. Kemp Clark, professor and chairman of the Division of Neurosurgery.

Chemical anesthetics, including gases, continue to be used widely in operations and in relief of recurrent pain, and a variety of methods under the realm of physical therapy at the medical school bring relief.

Main thrust of the pain clinics at Parkland Memorial Hospital, Veterans Administration Hospital and the medical school is away from drugs which involve the whole system. Location of specific nerves and injection of deadening drugs at precise sites form the most regularly-used sequence in pain treatment.

Still, there are people on whom nothing seems to work and this is where Drs. Montgomery and Raj consider acupuncture. Instead of traditional Oriental needle sets, the two doctors use hair-fine No. 30 hypodermic needles.

"My fingers used to explode," recalls a 67-year-old man who was referred to the clinic after he had had extensive neurosurgery for pain. For two years, numbness had been progressing in his arms and hands to the point he sometimes burned his fingertips with forgotten cigarettes.

One treatment with acupuncture freed him of pain in his right arm "and helped the pain in my left hand for two or three hours." He also felt that the acupuncture treatments aided the facility of the fingers in one hand.

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second add pain

Although it hasn't been completely successful, "it's done more to help than anything," said the patient.

A 35-year-old man of athletic bent who had suffered numbness and pain in the left leg and lower back decided to undergo acupuncture treatment as a "shot in the dark." The six-foot, five inch, 210 pound skier, swimmer and bike racer described an immediate effect of pain alleviation the first time the needles were placed in the small of his back and in the back of his knees.

"The first one was wonderful--the second wasn't so good," says a woman who drives to Dallas from Nacogdoches for the treatments. But before the treatments, "I could have climbed the walls."

By far the most interesting result of acupuncture treatment is given by one of Southwestern's own faculty members--an anesthesiologist who had been driven to bed by low back pain and muscle spasms. He agreed to let Drs. Montgomery and Raj try acupuncture.

Before a group of interested medical observers, the two doctors placed 36 needles in their fellow faculty member.

The result?

"It's frightening," muses the doctor. "When I got up I was totally pain free. I was sure having a lot of pain and a lot of muscle spasms, and I got complete relief in only one treatment. It was an interesting experience and, of course, I am still attempting to make a professional assessment of it."

Acupuncture remains a phenomenon in search of a theory.

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third add pain

"I think there is some hypnotic and/or cultural effect involved," says Dr.M.T.Jenkins, professor and chairman of the Department of Anesthesiology at Southwestern. He points out that situations affect pain--soldiers who get whole limbs shot away on the battlefield may not feel pain until much later. Most persons have had injuries and not felt pain till later.

More direct is neurosurgeon Kemp Clark: "I've often said that when the Chinese discover Halothane, they'll give up acupuncture." (Halothane is a modern chemical anesthetic agent)

He and Dr.Jenkins both point out that only a small percentage of operations are done with acupuncture in China--the rest being performed with traditional anesthetics.

Dr.Clark, who is on national and regional study groups for use of dorsal column stimulators and implantable peripheral nerve stimulators, notes, "There is a significant failure rate in all forms of pain therapy.

"Pain is such a widespread and so protective a system. It's very difficult to understand. It seems to be defined by the individual on a subjective scale and the only way one can evaluate pain is in the societal reaction of the individual."

Dr.Dave Daly, professor of neurology, points to what has come to be known as the "Greenback Syndrome." Persons who are paid lump sums as a result of work-related injuries are quicker to return to work than those paid on a continuing basis, and those who are injured at home tend to return to work more quickly than those injured on the job.

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fourth add pain

"I think," says Dr.Clark, "there is a great deal of difference between pain and suffering and in the anticipation of these difficulties. It's my impression that in the case of pain from malignancy, behavior is far more related to anxiety and depression.

"The population is becoming far more demanding of a pain-free state of life. They're not willing to put up with the minor aches their grandparents did. And we are dealing with a lot more chronic problems and a lot of conditions because people are living longer and winding up with more degenerative processes," Dr.Clark concludes.

In day-to-day clinic work, says Dr.Raj, people are usually classified into four groups: 1. Those with a psychological overlay; 2. Those with an anatomical lesion; 3. Those with a combination of the first two; and 4. Those whose diagnosis is obscure.

Further categorization is done on the basis of the type of nerve fiber involved and the type of pain. There is a type of pain due to visceral organs and even "phantom" pain--the persistent feeling of pain in parts of limbs which have been amputated.

Once the pain is diagnosed, the doctors try to find the location for a good block and then inject a temporary local anesthetic. If this is successful, the doctors think in terms of prolonging it. Some neurolytic solutions can give relief for up to two years. The group has done a number of permanent blocks for pain all over the body.

(more)

fifth add pain

In rare cases where there is limited life expectancy, as in a malignancy, a cordotomy or nerve-severing operation is sometimes performed by neurosurgeons, says Dr. Clark. Lobotomy, the cutting of nerve pathways in the brain, has been used for pain alleviation.

More recently, experimental operations have been done for pain in which electrodes are implanted in the thalamus, which scientists believe is the terminal end of the pain pathway in the brain.

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(Photos available on request)