

DILIP BANERJEE

PAIN KILLERS

New approaches to pain management assess, diagnose and treat it as a separate entity in the life of a patient, not just as a byproduct of an illness

■ by Shefalee VASUDEV

DESPITE A FOURTH-STAGE cancer of stomach, a liver affected by the malignancy, long sessions of chemotherapy, and bouts of debilitating pain, 49-year-old Ravi Shankar isn't confined to the bed. On the contrary, the management executive drives 40 km to office and works long hours. While alternative healing techniques and family support have helped him cope with the ailment, Shankar admits it is the morphine pump implanted in his stomach that has put his life back on track. He no longer needs frequent hospitalisation for intravenous painkillers. The pump, one of the many new pain-management techniques now available in India (see box), continuously infuses painkilling drugs in the body. "It is hard to believe the dramatic change in his

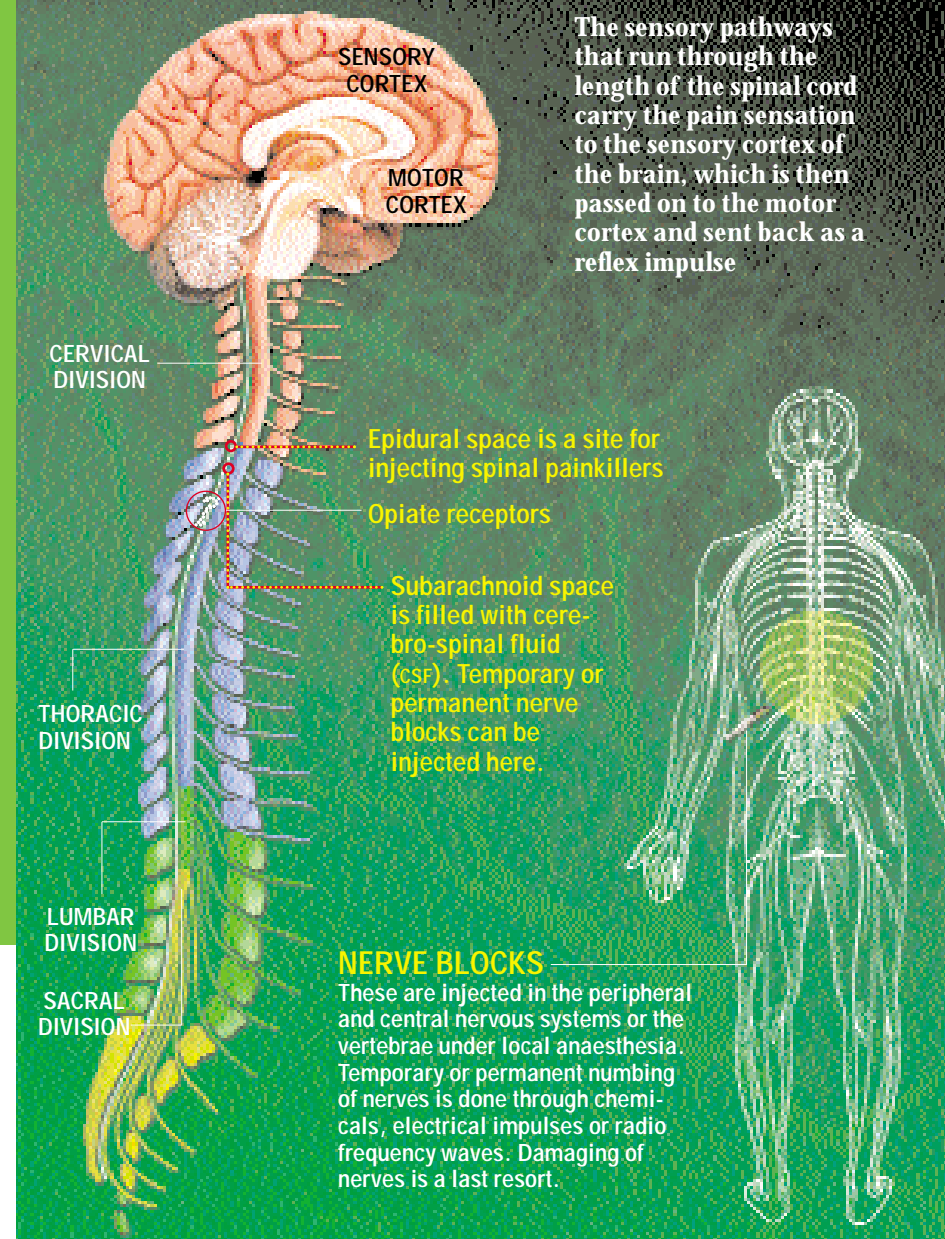
condition after the pump installation," says Dr G.P. Dureja, additional professor at the pain clinic at AIIMS, Delhi, a pioneer pain management specialist in India and one of the doctors attending on Shankar. Studied and practised as a super-specialised branch of medicine across the world today, pain management offers relief and hope to patients assailed by severe pain, including that due to cancer, rated among the most painful. Also being targeted are severe backaches or cervical problems, killer migraines, nerve pains, pain in feet and calves due to diabetes, dental pains, pain after strokes or phantom limb pains (imagined pain in a limb lost due to accident or disease). While India has few specialised, and not so advanced, pain clinics, most of the big hospitals in metros have basic pain teams besides independent clinics in some cities.

Though universally suffered, the

perception of pain differs from person to person. While some people smile through the most severe attacks of abdominal colic or multiple fractures, a cut on the finger or even a mild headache can be "unbearable" for others. Keeping in mind the subjective differences, pain clinics use detailed assessment forms. These help gauge individual pain tolerance levels, the psychological make-up of a person, gender, circumstances, the origin of pain, its duration and evolution from acute or incidental to chronic, moods, working conditions of the patient and levels of emotional health. All of these are considered before deciding the line of treatment.

"Anxiety alters the perception of pain so much so that even imagined pain causes people to faint," says Delhi-based urologist Rajesh Ahlawat. Recounting the healing patterns of willing versus unwilling kidney donors, he adds, "Will-

PAIN TRANSMISSION AND RELIEF



AGONY ALLEVIATING TECHNIQUES

RADIO FREQUENCY ABLATION
After a radiography machine pinpoints the site of the pain, a fine needle is inserted into the nerve (the pain pathway). When radio frequency waves of a particular potency are passed through it, the nerve gets damaged. This blocks the transmission of the pain sensation to the brain.

NERVE BLOCKS
Pain pathways are temporarily numbed either through chemicals (alcohol or other drugs), electrical impulses or ultrasonic waves.

SKIN PATCHES
Patches enable analgesics to enter the bloodstream directly.

PUMPS
Sophisticated catheters are inserted through needles to place them on peripheral nerves and plexuses for continuous release.

SUPPOSITORIES
Pain-relieving drugs are given in the form of rectum suppositories.

SELF-CONTROLLED INTAKE
Patient controls drug infusion via pumps with preset dosage.

EPIDURALS
Long-lasting epidurals are injected into pain receptors in the spinal cord.

BIOFEEDBACK
Physiological changes are viewed on a monitor to help the patient gain voluntary control.

FUSION TECHNIQUES
It is a combination of traditional methods and holistic techniques along with allopathic drugs.

ing donors heal faster whereas unwilling ones complain of various aches and pains after the transplant surgery."

"Pain management is no longer just a doctor's problem," says anaesthetist Vijay Kumar, a senior member of the pain management team at Delhi's Apollo Hospital. "We consider the patients' willingness and views before finalising treatment," he adds. Patients are also asked to grade their pain as well as describe its nature (excruciating, mild, spasmodic and so forth) through a questionnaire.

Aiding the psychological assessment are new, physical strategies, including skin patches that use painkillers (like

morphine or Fentanyl) and can be attached on thighs, arms, chest or the abdominal area. The analgesics enter the bloodstream directly through skin pores relieving grave terminal and arthritic pains and other minor or severe abdominal and chest pains. Then there are the non-invasive analgesic suppositories like those of Voveran, Diclofenac and Paracetamol that are inserted in the rectum for quick relief. For sustained relief from cancer or post-surgery trauma, there are patient-controlled drug infusion pumps that prolong the effects of injectable analgesics. These pumps have preset rates of drug delivered per hour and a

prescribed volume released over a period. To avoid misuse there are locking systems that do not allow the patient to tamper with the preset rate.

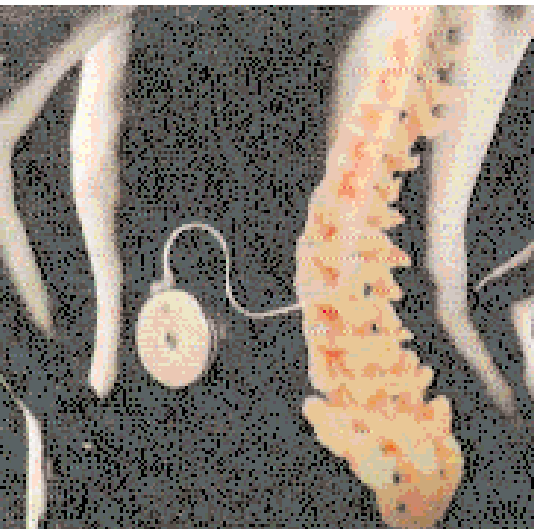
While invasive techniques have higher success rates, gentler approaches like biofeedback also work but only with the active participation of the patient. Electronic equipment shows involuntary physiological changes in the body that can be viewed on a monitor. Patients are then taught to bring these responses under voluntary control. Biofeedback is known to be especially successful in case of spasmodic muscular pains, migraines, lower back and

// Chronic pain can destroy a person's self-esteem. //

VIJAY KUMAR, anaesthetist, Apollo Hospital

// Willpower drastically alters the way people handle pain. //

RAJESH AHLAWAT, Delhi-based urologist



MORPHINE PUMPS

Morphine pumps are sophisticated catheters that are implanted under local anaesthesia beneath the skin by creating a pouch near the site of the pain. Depending upon the severity of the pain and the patient's pain tolerance level, the pumps are preset to release requisite doses of morphine continuously into the body. Relief is quick and long-lasting. The pumps can hold up to six months' supply of medicine and have to be refilled.

arthritic pains. Some pain clinics now also involve dieticians as certain foods aggravate diseases and pain. For instance, excessive intake of tomatoes, potatoes and certain raw foods create deficiencies in patients with diabetes and hypertension, leading to acute pain in legs, calves and lower back. Substituting them with foods rich in fatty acids reduces the pain.

However, as most doctors point out, the most remarkable pain management procedure now also used in India is the ablation (damage) of nerves with radio frequency waves. Take Samona, 40, a housewife who developed systemic vasculitis, a disease that causes thinning of blood vessels. Soon her fingers and toes were affected by gangrene and the pus in her fingers, made worse by environmental exposure or movement, had Samona screaming in pain for hours. She even considered amputation. Finally, Samona came to AIIMS for radio frequency lesioning. Under local anaesthesia, the nerve connect-

ing the affected area to the spinal cord is lesioned by passing radio frequency impulses of a certain temperature, potency and duration. Ablation of nerves is carried out as a last resort while "a middle path is the use of temporary nerve blocks that numb the pain pathways", says Dureja. "The effect is instantaneous, with relief lasting from six months to a year depending on the severity of the disease. It can be repeated when needed," he adds.

In the West, where pain management has been a super speciality for a couple of decades now, a pain team ideally consists of a physician, an anaesthetist, an anaesthetist nurse, a neurosurgeon, a psychologist and a physiotherapist who work round the

Though epidurals have been available for years, the generational difference in scientific tempers has impeded their acceptance. Dr Tripat Choudhary, gynaecologist, says that older women often stress on a gruelling labour because they believe it creates an emotional bond between the mother and the child. "Epidurals take away the pain completely and the psychological boost shortens labour because patients become cooperative," says Choudhary. But she agrees that like all invasive procedures, epidurals too have side-effects and may lead to temporary backaches.

In principle, all doctors agree that invasive pain management has side effects. Epidural anaesthesia, lesioning of pain pathways or surgery to relieve

PAIN ASSESSMENT SCALE



NILANJAN DAS

SCALES HELP EVALUATE THE NATURE AND EVOLUTION OF PAIN

One way of grading pain is to have the patients fill up evaluation forms carrying various pain scales. Some scales comprise 8-10 facial expressions depicting pain and are especially useful for children. Other details about the nature of pain (quivering, stabbing, torturing, pinching, drilling), its origin, its relation to moods, job satisfaction, emotional health are also evaluated.

clock. But in India, pain teams rely mainly on the skills of anaesthetists and neurosurgeons. It was the epidural injections, says Kumar, that initially revolutionised pain management. Epidural anaesthesia also changed the gamut of extreme reactions to labour pains. "I couldn't believe labour could be painless," says Pratima Nangia, 31, who was so scared of labour pains that she suffered anxiety attacks during her pregnancy. Her gynaecologist suggested an epidural which, says Nangia, helped her remember every moment of the wonderful experience of giving birth.

pain can result in anything from a mild drop in blood pressure, stroke, convulsions, serious allergic reactions and cardiac arrest to death as an extreme complication. "These should be attempted only by trained specialists," says Kumar, emphasising the importance of personalised comprehension of pain. Dureja adds, "Even among doctors, the awareness has just begun. Specialised training is imperative as a wrong prick in the spine can paralyse or even kill a patient."

Risks notwithstanding, most Indians would willingly succumb to the lure of pain management. ■