



Issue-09 | NOVEMBER 2010

Healthy

Life

Newsletter

www.hiranandanihospital.org

Department of Anaesthesiology



inside

- Types of Anaesthesia
- Surgery For The Overweight
- Low Backache
- Painless Labour
- Paediatric Anaesthesia

The term Anaesthesia comes from the Greek for "loss of sensation," but that is not the only effect it causes in your body. Anaesthesia essentially is a reversible condition induced by drugs. It can relieve pain, give you amnesia to knock out your memory of the procedure or how it felt, reduce anxiety and paralyze your muscles.

The Department of Anaesthesiology at Dr L H Hiranandani Hospital has a team of six full-time qualified anaesthesiologists. An anaesthesiologist is always present on the premises even during the silent hours. Last year, the department conducted anaesthetic procedures in over 4000 surgeries and so far, in 2010 the team has anaesthetized in nearly 3000 surgeries.

Dr L H Hiranandani Hospital

Mumbai's First NABH Accredited Hospital
ISO 9001:2008 CERTIFIED, DAR & NABCB ACCREDITED



Winner of IMC Ramkrishna Bajaj National Quality Award - 2008 & International Asia Pacific Quality Award (IAPQA) - 2009

CALL US FOR ANY QUERY: + 91-22-2576 3300

Our Team of Anaesthesiologists



Dr Laxmi Kamat
MD, DA
Full Time Consultant -
Anaesthesiology



Dr Amol Pradhan
MD (Anaesthesia)
Full Time Consultant -
Anaesthesiology



Dr Sameer Pradhan
MD, DNB, FCPS, DA, DAc
Full Time Consultant -
Anaesthesiology



Dr Preeti Anand
MD (Anaesthesia)
Full Time Consultant -
Anaesthesiology



Dr Dinesh Sangwan
MD (Anaesthesia)
Full Time Consultant -
Anaesthesiology



Dr Meenoti Potdar
MD (Anaesthesia)
Full Time Consultant -
Anaesthesiology

Types of Anaesthesia

General Anaesthesia is a technique during which the patient is rendered unconscious. It is usually induced and maintained by giving the patient an intravenous drug, an inhalation drug, or a combination of both. As the surgeon completes the procedure, the anaesthesiologist reduces the depth of anaesthesia so the patient will awaken at the end of the procedure or shortly thereafter and will regain consciousness.

Local Anaesthesia is used to make a very small area of the body, such as a patch of skin, insensitive to pain.

It typically provides both analgesia and paralysis by blocking the nerves' impulses so they cannot travel to the brain, but patients may still feel pressure.

Regional Anaesthesia is a term used to describe anaesthesia that is used in a wider region of the body to block a single nerve or specific bundle of nerves. For example, while local anaesthesia may be used to numb an area on the leg, regional anaesthesia can numb the entire leg.

Central Anaesthesia is another type of regional anaesthesia, which usually involves an injection into the cerebrospinal fluid or the epidural space just outside the spinal canal.

Epidural Anaesthesia is a procedure in which an anaesthesiologist inserts a catheter into the epidural space, typically in the lower back area. This catheter continuously feeds anaesthetic drugs to provide pain relief, resulting in a loss of sensation from the waist

down. Women who have given birth are probably very familiar with this central anaesthetic technique.

Spinal Blocks, which are injected into the cerebrospinal fluid, are often used for other procedures below the waist, such as Cesarean section or hernia surgery. They tend to paralyze more than epidural. While the patients are usually awake for a spinal block during a C-section, they may be sedated for other procedures.

Conscious Sedation: the patient is sleepy and relaxed but fully awake to be able to answer questions and follow instructions. This type of anaesthesia is used for short, relatively minor medical procedures like endoscopies and dental extractions.



Surgery For The Overweight (Bariatric Surgery)



Dr L H Hiranandani Hospital is one of the major centres for bariatric surgery in the city of Mumbai having conducted arguably the largest number of bariatric surgeries or surgery for the very obese in the city.

The surgical approaches designed to treat obesity can be classified as malabsorptive or restrictive.

1. **Malabsorptive procedures**, although they reduce stomach size, these operations are based mainly on creating malabsorption
2. **Restrictive procedures** primarily reduce stomach size

Preoperatively, it is recommended that the patient's usual medications,



except insulin and oral hypoglycemics, be continued until the time of surgery.

Morbid obesity is a major independent risk factor for sudden death from acute postoperative pulmonary embolism (PE). To prevent PE, heparin or low molecular weight heparin in combination with pneumatic compression stockings is quite effective.

Regular operating room tables have a maximum weight limit of approximately 205 kg, but operating tables capable of holding up to 455 kg, with a little extra width to accommodate the extra girth, are available. Particular care should be paid to protecting pressure areas, because pressure sores and neural injuries are more common in this group.

Special blood pressure cuffs with bladders that encircle 75% of upper arm circumference are used. The central venous catheters are used in cases where peripheral IV access cannot be obtained. The department has the latest equipment to deal with difficulties faced while giving anaesthesia to these patients with weight-related issues. The most advanced anaesthesia machines help us to control exactly the required amount of anaesthetic gas and oxygen.

Laparoscopic bariatric surgery induces less postoperative pain and is less likely to interfere with post-operative patient breathing. Most laparoscopic bariatric patients do well with local anaesthetic wound infiltration and narcotic pain-killers in low doses.

Bariatric surgery is a safe and viable option in the management of obese patients when nonsurgical treatment options have been unsuccessful.

Low Backache



Back-pain is one of the most common reasons people visit their doctor. It can occur in any area of the back, but it is more common in the lower part, which supports most of the body's weight. Acute pain, the most common type of backache, is the one that develops suddenly and goes away within 6 weeks whereas chronic pain can come on fast or slow, but it lasts longer than 3 months.

Cause

In about 85% of backache cases, the origin of the pain is unknown. The disc herniation and degeneration (often erroneously called "slipped disc") due to aging is the most common causes of low back pain.

A stone in the kidney, ureter or bladder or urinary tract infection may also give rise to backache. These medical conditions need to be ruled out before labeling it as chronic low backache. Psychological conditions like depression may also lead to chronic backache.

Management

Treatment of chronic backache is most challenging and requires specialized help.

Often, a detailed history about the nature, site, progression and radiation of pain gives some clues to search for the possible causes. Evaluation of the patients' posture and walking gait alongwith local and a detailed neurological examination can often indicate the cause of chronic backache.

Most patients start non-steroidal anti-inflammatory drugs (NSAIDs) themselves even before consulting a physician. However, these drugs are

notorious to cause hyperacidity and their chronic unsupervised use may wreck havoc with the kidneys. Drugs like opioids and tramadol can be prescribed in some cases, as they are effective painkillers. Anticonvulsants like Gabapentin and Pregabalin and antidepressants like Duloxetine act as effective painkillers in such like pain.

Short Wave Diathermy, Transcutaneous Electrical Nerve Stimulation (TENS), acupuncture may cause variable degree of pain relief; though physiotherapy and proper body posturing is recommended to all patients with chronic backache.

Invasive techniques like steroid injections (intramuscular, intravenous or epidural) can be offered to those patients resistant to conservative line of treatment. However, in patients with significant neurological deficit or unrelenting severe pain, surgery should also be considered.

Exercise should be considered as part of a broader program to return to normal activities. It may be combined with a psychological and motivational program such as cognitive-behavioral therapy. Yoga relieves low back-pain much better than the conventional exercise regimens and is therefore strongly recommended.

Painless Labour



Advantages of Epidural Analgesia

- Provides superior pain relief during first and second stages of labour
- Facilitates patient cooperation during labour and delivery
- Provides anaesthesia for episiotomy or forceps delivery
- Allows extension of anaesthesia for cesarean delivery
- Avoids opioid-induced maternal and neonatal respiratory depression

Requests from patients and obstetricians have resulted in a substantial increase in the use of epidural analgesia during childbirth over the past two decades. The increased availability of epidural analgesia and the favorable experiences of women who have had painless labor with epidural block have reshaped the expectations of pregnant women in labour.

The status today

The American Society of Anaesthesiologists has published guidelines for regional anaesthesia in obstetrics. The guidelines state "anaesthesia should be provided only by practitioners with appropriate privileges in facilities where resuscitation equipment and drugs are immediately available". The guidelines also advise "regional anaesthesia not be given before the patient has been examined and a physician with obstetric privileges has evaluated the maternal and fetal status and progress of labour". Furthermore, a physician should be readily available to manage obstetric complications that may arise during induction or maintenance of epidural analgesia.

Pain relief alone is an adequate medical indication for administration of epidural analgesia during labour. The American College of Obstetricians and Gynecologists and the American Society of Anaesthesiologists have collectively published the opinion that "maternal request is sufficient justification for pain relief during labour". In addition, these groups point out "there is no other circumstance where it is considered acceptable for a person to experience severe pain, amenable to safe intervention, while under a physician's care".

The situations where the epidural analgesia is not advisable are:

- Patient refusal
- Active maternal hemorrhage

- Septicemia
- Infection at or near the site of needle insertion
- Clinical signs of coagulopathy.

Complications

Elimination of painful stimuli and the onset of peripheral dilatation of blood vessels typically reduce maternal blood pressure during the onset of epidural blockade. Neurologic complications of epidural or spinal analgesia are rare. Perhaps the most common postpartum complication of epidural analgesia is postdural puncture headache. Rare but life-threatening complications from epidural analgesia include the following:

- (1) Maternal convulsions or cardiovascular collapse after unintentional direct intravenous injection of a local anaesthetic
- (2) Total spinal anaesthesia following unintentional subarachnoid injection of local anaesthetic

Conclusion

The increased availability and effectiveness of epidural analgesia have altered the expectations of many women regarding intrapartum pain control. The obstetricians should discuss this method of pain control with their prenatal patients. The risks and benefits of epidural analgesia, as well as other options for pain control should be objectively presented to each woman well before the onset of labor. In addition, women can be encouraged to attend childbirth classes to help them prepare for stresses that may arise during labor and delivery. Careful patient evaluation, meticulous technique during epidural catheter placement and appropriate dosing of medication minimize the risk of serious complications from epidural analgesia.

Paediatric Anaesthesia



- No breast milk for 4 hours prior to surgery
- No solids or cow's milk for 6 hours prior to surgery

Children have a higher cardiac output and oxygen consumption per kilogram than the adults. This is supported by an increased respiratory rate. Hence, adequate oxygenation is essential. Paediatric patients lose heat to the environment more readily than adults do. This is due to an increased surface area per kilogram body weight. It is important to PREVENT heat loss with a warm operating room environment, warmers and temperature monitoring. These are all available in the hospital.

Inhalation induction is generally the preferred method in children under the age of ten. Paediatric drugs and maintenance are generally dosed on a per kilogram basis. Neonates are more sensitive to opiate analgesics during the first four weeks of life, leading to an increased risk of apnea.

Children are transferred to recovery room after surgery, allowing them to emerge fully from the effects of anaesthesia under the watchful eyes of skilled nursing personnel, with anaesthesiologist's consultation immediately available. While safety is the first priority during surgery, it is also true that the patient must be monitored and continually assessed while fully regaining consciousness.

Dr L H Hiranandani Hospital's team of anaesthesiologists are skilled in giving anaesthesia to infants born at term, before term, very low birth weight babies and babies born with inborn or congenital problems. The machines are the highest end available in the city that can cater to very tiny puffs of air that such babies require.

The precautions that are commonly taken before surgery for these infants and other paediatric cases are -

- No clear liquids for 2 hour prior to surgery

ENDORPHINS



A well known rich businessman's wife broke her hip. The businessman got the best bone surgeon in town to do the operation. The operation consisted of lining up the broken hip and putting in a screw to secure it. The operation went fine, and the doctor sent the businessman a fee for his services of \$5000. The businessman was outraged at the cost, and sent the doctor a letter demanding an itemized list of the costs. The doctor sent back a list with two things:
1 screw \$ 1
Knowing how to put it in \$4999
\$5000 total
The businessman never argued.

Dentist Visit

The Smiths were shown into the dentist's office, where Mr. Smith made it clear he was in a big hurry. "No fancy stuff, Doctor," he ordered, "No gas or needles or any of that stuff. Just pull the tooth and get it over with." "I wish more of my patients were as stoic as you," said the dentist admiringly. "Now, which tooth is it?" Mr. Smith turned to his wife. "Show him, honey."



Contact Us



Hiranandani Hospital
Your family hospital™

Dr L H Hiranandani Hospital

Hillside Avenue, Hiranandani Gardens, Powai,
Mumbai - 400 076.

Tel: 2576 3300 / 3333 • Fax: 2576 3344 / 3311

Hiranandani Hospital

Hamilton 'B', Hiranandani Estate,
Off. Ghodbunder Road, Patlipada, Thane (W) - 400 607.
E-mail: info@hiranandanihospital.org

Board (Powai)	: 2576 3300, 2576 3333, 2576 3999
Multitask Counter	: 2576 3485, 2576 3486
Casualty	: 2576 3322, 2576 3323, 2576 3328, 2576 3271
Laboratory	: 2576 3366, 2576 3365, 2576 3234
Home Health Care	: 2576 3322, 98198 73621
Ambulance	: 2576 3328, 2576 3323
Health-check	: 2576 3318, 2576 3398
Blood Bank	: 2576 3355, 2576 3356
OPD Counter	: 2576 3337, 2576 3338, 2576 3339, 2576 3340
Centralised OPD Appointment	: 2576 3500
Hiranandani Hospital, Thane	: 2545 8666, 2530 8666, 2530 8670, 2530 8668

E-mail: wecare@hiranandanihospital.org • homecare@hiranandanihospital.org
pathology@hiranandanihospital.org

Editorial Team

- Dr Sujit Chatterjee
- Dr Suvin Shetty
- Mr Manish Joshi
- Ms Debashree Sanyal