

Acute Pain Management

Aftab Imtiaz

Pain and its management should be top priority for any doctor because not only it is humanitarian to provide comfort to the patient but it also decreases the morbidity and mortality associated with surgery¹. The International Association for the Study of Pain (IASP) defined, "pain as an unpleasant sensory and emotional experience associated with actual or potential tissue damage"².

Analgesics are required in the intra operative and the postoperative period for the following reasons. Use of intra operative analgesics has several advantages it results in a smoother induction of anaesthesia. Analgesics partially or completely attenuate the response to laryngoscopy and intubation, when given before endotracheal intubation. Analgesics given before induction decrease the dose requirement for the induction agent. This is helpful in patients with borderline cardiac reserve.

Prompt and rapid recovery at the time of reversal, is due to lesser amount of induction and the inhalation agents used. The patient is pain free in the immediate recovery period³.

Analgesics are advisable in the post operative period because of several reasons. Good post operative pain relief can reduce the metabolic response to trauma and this may prevent post operative negative nitrogen balance. Pain free patient has better mobility. The immediate benefits of

this are to ensure adequate coughing, deep breathing exercises and co operation during physiotherapy and this reduces the incidence of chest infections. Pain free patient due to earlier mobility has a reduced incidence of deep venous thrombosis. The improved moral and mobility resulting from good pain relief after surgery could contribute to more rapid and complete recovery⁴.

One of the major problems in developing countries in the specialty of anesthesia is the availability of drugs. Fentanyl is not as yet freely available in Pakistan, and the only other pure narcotic analgesics available for intra operative use are pethidine and morphine. The availability of pethidine and morphine can be a problem as both these drugs are subjected to the controlled Drugs Act with only a certain quota released to the hospital at variable intervals. The potency of the locally manufactured drugs has been questioned at times due to lack of good quality control. Nalbuphine being an uncontrolled drug in Pakistan is easily available. Non steroidal anti inflammatory drugs are also available to provide analgesia for mild to moderate pain. Epidural Anaesthesia is an integral part of today's practice of anaesthesiology. Epidural space is a potential space outside the dura mater extending from foramen magnum to the sacral hiatus upto the sacrococcygeal membrane being widest in the mid lumbar region.

Local anaesthetics with or without opioids when injected into epidural space produces effective regional anaesthesia regardless of whichever space is selected. In the recent year's regional anaesthesia and in particular epidural anaesthesia and post-operative analgesia, is gaining acceptance because of its favorable effects on several aspects of post operative outcome⁵. Especially the high risk group

Department of Anaesthesiology,
Abbasi Shaheed Hospital and
Karachi Medical and Dental College.

Correspondence: Dr. Aftab Imtiaz
Department of Anaesthesiology
Abbasi Shaheed Hospital and
Karachi Medical and Dental College.
Email: aftab_imtiaz@yahoo.com
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regarding haemodynamic stability, partial reversal of diaphragmatic dysfunction⁶, reduction of postoperative ileus^{7,8}, maintenance postoperative pulmonary functions^{9,10}, abolishing perioperative metabolic stress response¹¹ and most importantly it is an effective method of managing postoperative pain¹².

Nearly all parenteral opioid analgesics and sedatives readily cross the placenta and can affect the fetus. Regional anaesthetic techniques are preferred for the management of labor pain. Continuous lumbar epidural analgesia is the most commonly employed technique, because it can be used for pain relief for the first stage of labor as well as analgesia /anaesthesia for subsequent vaginal delivery or cesarean section, if necessary

When dilute mixture of local anesthetic and an opioid are used, epidural analgesia has no effect on the progress of labor¹³. No ideal analgesic for labor pain but low dose epidural technique provide effective analgesia in more than 90% of the cases, while preserving motor function to a large degree. Effective epidural analgesia reverses the adverse physiological effects of labor pain by blocking the psychological and biochemical stress response, resulting in improved maternal well-being and placental perfusion¹⁴. More research is required in Pakistan for the management of effective acute pain control.

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