



**RECENT TRENDS IN ANALGESIC USE IN EARLY POST-OPERATIVE PERIOD:
A RETROSPECTIVE MULTICENTRIC STUDY**

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ABSTRACT

Pain control in post-operative period is important not only for patients comfort but also for quick recovery to normal function. Good pain control enhances early return of bowel function, early ambulation and early discharge. Various pharmacological agents have been used for this purpose. This multicentric study demonstrates the outcome of different agents in controlling post-operative pain.

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INTRODUCTION

Pain control in early post-operative period is very essential to prevent tachycardia, hypertension, myocardial infarction, poor ventilation and poor wound healing (1), Acute pain causes neuronal sensitization and release of harmful mediators. Various pharmacological agents including morphine, ketamine, gabapentin, pregabalin, dexmetomidine, diclofenac sodium etc have been used. Various interventional procedures, patient controlled analgesia as well as various modes of drug administration, namely, intranasal, regional, transdermal even pulmonary in addition to intravenous routes have been practiced. Though various pharmacological agents have been used and various modes of pain relief are practiced, efficiency of such agents or modes in respect to pain relief needs to be estimated and compared.

Aims and Objectives

1. Recent trend of analgesia practised; regional anaesthesia or intravenous analgesia.
2. Commonly used analgesic; NSAIDs or opioids.
3. Comparison of degree of analgesia in both manoeuvres.

4. Whether there is any variation in trend in private hospitals compared to government hospitals.
5. Whether premedication had any impact on post-operative pain management.

MATERIALS AND METHODS

A retrospective questionnaire based study was done at multiple centres, government as well as private hospitals to assess the recent trend of analgesia practiced in the early post-operative period for the relief of pain. An ethical clearance was obtained from the institution concerned and 300 questionnaire sheets were distributed to anaesthesiologists of the concerned hospitals and anonymity of the patients were strictly maintained. Patients of the age group 18 to 60 years undergoing operative procedures of 1-2 hours duration, of ASA I and II grade status were included in the study with due consent. In the questionnaire the age, sex, duration of operation, premedication given if any, mode of anaesthesia, post-operative analgesic advised were all noted. The degree of analgesia was assessed at immediate post-operative period, ie within 6 hours and again after 12 hours by visual analogue scale and verbal rating scale. Clinical observations like facial expressions, restlessness, vocalization or limb movements were taken into account. The filled up questionnaires were collected from each institution, data entered into excel sheet and analysed for results.

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DISCUSSION

Proper pain relief in early post-operative period have nowadays produced an important impact as patient care is in question. Proper pain relief in post-operative period discard the possibility of negative clinical outcomes like decreased vital capacity, decreased alveolar ventilation, tachycardia, hypertension, precipitation of myocardial infarction or pneumonia (2,3,4). Pain is also an important cause of non ambulation and increased hospital stay.

The correct application of multimodal analgesia is still inappropriate and pain undertreated. Probably best benefit is obtained by combining systemic analgesics with regional analgesia techniques (5). In addition to epidural analgesia, recently peripheral blocks along with parietal infiltration techniques in operations like hernia or hemorrhoid repair has become popular (5). Cashman and Dolin had emphasized regarding occurrence of respiratory depression and hypotension following PCA and extradural analgesia. Post-operative pain management with NSAIDs though effective was not without adverse effects and was contraindicated in many patients (6). Thus there is a pressing need for advances in use of agents or techniques for improvement in analgesic efficacy in post-operative period following surgery.

Adequate pain relief is an integral part of anaesthesia. The current practice of using post-operative analgesics eg. i.v. diclofenac, i.v. paracetamol, COX-2 inhibitors and opioids may not be sufficient in adequate pain relief (7). Ultimately procedure specific, evidence based, patient co-morbidity and psychology based pain management practice becomes a necessity (7). New targeted analgesic medications and techniques provide safer and better post-operative pain control than traditional approaches like oral analgesics (8).

Post-operative nausea, vomiting and pain are the major concerns for the post-operative patients. With increasing understanding of pathophysiology of acute pain, it is unlikely that a single drug or intervention can be adequately effective in relieving moderate to acute pain. As morphine and its congeners are most effective in reducing such pain, so are their incidence of side effects (9). Hence the recent approach is to use multiple drugs or modalities, eg regional anaesthesia as add on to produce maximum pain relief and reduce the incidence of adverse effects (9).

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