



## Comparison of Diclofenac Suppository on Pre-Operative and Post-Operative Analgesia in Hernia Patients

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### Abstract

**Background:** *The goal of observe and evaluate the analgesic efficacy of diclofenac suppository on pre-operative and post-operative in hernia sufferers*

**Materials and Methods:** *60 hernia patients were put in a prospective randomized control trials. First set 1 comprising of 30 sufferers receiving diclofenac suppository before surgical treatment. Second set 2 comprising of 30 sufferers receiving diclofenac suppository after surgical operation. Visual analogue scale (VAS) is used to compare and grade pain sensation.*

**Conclusion:** *we concluded that diclofenac suppository is greater effective in pre-operative than in post op hernia sufferers.*

**Keywords:** *Diclofenac suppository, hernia, visual analogue scale (VAS), pain control.*

### Introduction

Surgery is a form of slicing tissues, traction and tissue damage ends in stimulation of loose nerve endings and precise nociceptors leading to intraoperative and postoperative pain. Post-operative pain is associated with all surgical techniques. This arise in step with the surgical treatment. Severe ache an extend gastrointestinal ileus, urinary retention, impair breathing actions generating atelectasis and predisposes to deep vein thrombosis due to immobilization.<sup>1</sup>

Various methods to relieve postoperative pain are NSIADs, opioids (intramuscular, transdermal or transmucosal), patient controlled analgesia, neighborhood infiltration of anesthetic tablets, epidural analgesia and intrapleural analgesia.<sup>2</sup> The approach used relies on magnitude and extent of

surgical operation performed, severity of ache, whether the affected person is nil per oral and assistance available in hospitals. It is vital to give analgesics by way of intramuscular or intravenous path in the initial post-operative period and until the affected person is capable of returning to normal function.<sup>3</sup>

Commonly used injections after surgery are dilofenac, pentazocine, tramadol, morphine. In tertiary care facilities, epidural analgesia, intravenous patient managed analgesia, intrapleural analgesia can be used below expert care. When affected person is able to receive orally paracetamol, ibuprofen and other analgesic orally.<sup>4</sup>

Post-operative nausea and vomiting cause huge morbidity and prolonged hospitalization. It has an

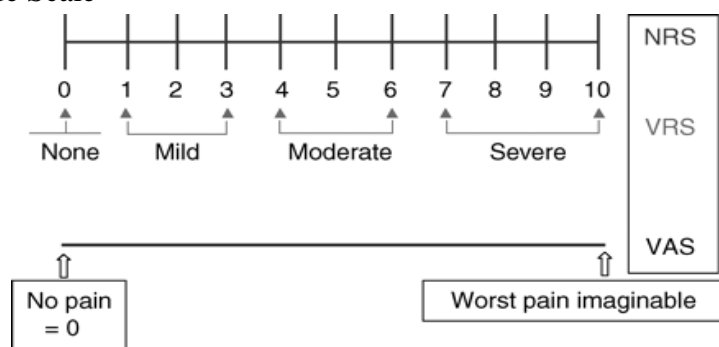
occurrence of 20-30% after abdominal surgical operation. Predisposing elements are diabetes mellitus, pregnancy, dehydration, electrolyte imbalance, gastroesophageal reflux, emergency surgery, use of sure anesthetic capsules and opioids.<sup>5,6</sup>

**Methods**

This study is a prospective randomized study, In this workup, 60 sufferers between age among 40-60 years belonging to ASA grades I, II undergoing hernioplasty and pre-operative sufferers were study. Exclusion standards- ASA grade III, IV or V, patient scheduled for neurosurgery, duration of surgical treatment >180 min, sufferers with anal/rectal pathology, sufferers with known renal disorder, patient records of bleeding. The written consent was received from all sufferers these sufferers had been randomly allotted into 2

groups: sufferers in organization 1 acquire diclofenac suppository before surgical operation. Affected person in group 2 receive diclofenac suppository after surgical procedure. Assessment of ache become accomplished the usage of visual analogue scale (VAS), is a measurement scale that attempts to measures magnitude of pain and it is graded ruler ranging from 0-10 displaying the minimum and maximum ache rating respectively. The score was assessed both pre and post operative period. If the patient have the rating of >3 is taken into consideration as ache. For the duration of this period crucial parameters inclusive of pulse, blood pressure, respiration, and facet outcomes like nausea, vomiting, coronary heart burn had been monitored. The facts turned into analyzed the usage of "unpaired t test". P price <0.05 become considered extensive.

**Figure 1-** Visual Analogue Scale



**Table 1** Mean VAS Score in Pre-Operative Patients

S.NO	Duration (in hrs)	Pre-operative		t-value	p-value
		Mean	S.D		
1.	2	3.8	0.58	30.02	0.000413
2.	4	2.8	0.64	15.06	0.000916
3.	6	2.1	0.42	11.99	0.000071

**Table 2** Mean VAS Score in Post-Operative Patients

S.NO	Duration (in hrs)	Post-operative		t- Value	P- Value
		Mean	S.D		
1.	2	4.5	0.46	11.68	0.00014
2.	4	3.4	0.56	21.09	0.00030
3.	6	2.8	0.63	11.12	0.000102

**Discussion**

The analgesic regimens want to fulfill the desires of providing safe, effective analgesia with minimum side results for hernia sufferers.

Diclofenac is an analgesic- antipyretic- anti-inflammatory drug, it inhibits cyclooxygenase (COX)-1 and COX-2, thereby inhibiting prostaglandin synthesis, it can also inhibit

neutrophil aggregation/ activation, inhibit chemotaxis, lower proinflammatory cytokine stage, and modify lymphocyte pastime. Such that feeling of ache might also decrease within the peripheral nervous machine. On the other hand NSAIDs haven't any side effects on CNS or purpose no drowsiness. The suppository is given instead of parental to reduce the side impact of vomiting and have instantaneous motion.<sup>8,9</sup>

### Conclusion

We evaluated pain response in patients who are not operated and operated for inguinal hernia, who are given diclofenac suppository for pain relief.<sup>10</sup> On observation diclofenac suppository provides excellent pain relief when compared to post-hernioraphy patients.

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