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A comparative cost-effectiveness analysis of intravenous infusion acetaminophen and intramuscular diclofenac for post-hysterectomy pain management: The AIDA study

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Background: After a hysterectomy, efficient pain management is crucial to the healing and comfort of the patient. In order to manage post-hysterectomy pain, this study compared the effectiveness, safety, and cost-effectiveness of intramuscular (IM) diclofenac with intravenous (IV) acetaminophen.

Methodology: One hundred female patients who met the eligibility requirements for a hysterectomy were prospectively enrolled. Information about the patient's demographics, medical history, hysterectomy type, and current symptoms were noted. For pain relief, patients were randomized to receive IV acetaminophen or IM diclofenac. A standardized scale was used to measure pain at different points after therapy. Cost-effectiveness and adverse medication reactions were assessed as well.

Results: When compared to baseline, IV acetaminophen and IM diclofenac both significantly decreased pain scores at all observed time points ($p < 0.05$). Over the course of 24 hours, IV acetaminophen showed a more persistent analgesic effect. Disparities between the treatments were found by analysing adverse medication reactions; IV acetaminophen was linked to a lower incidence of injection site discomfort and vomiting. IV acetaminophen was regularly found to be more cost-effective than IM diclofenac, according to cost-effectiveness study.

Conclusion: Compared to intramuscular diclofenac, IV acetaminophen is the more cost-efficient, safe, and effective analgesic alternative for treating pain following a hysterectomy. These results highlight the value of customized pain management techniques in clinical settings, with ramifications for improving patient outcomes and recuperation.

Biography

Dr. Akhil Arun is a distinguished academic and researcher in the field of pharmacy, currently serving as a Lecturer in the Department of Pharmacy Practice at the Amrita School of Pharmacy, Amrita Institute of Medical Sciences, Amrita Vishwa Vidyapeetham, Kerala, India. Through his dedication to education, research, and clinical practice, Dr. Akhil Arun continues to make significant contributions to the field of pharmacy and healthcare.

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