Pre-emptive Analgesic Efficacy of Intravenous Diclofenac versus Paracetamol in Orthopedic Surgery

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Background: Different treatment modalities have been proposed to relieve pain after orthopedic surgeries, however, despite significant advances in pain management, it is still inadequately relieved.

Objective: To evaluate the pre-emptive analgesic efficacy of diclofenac and paracetamol in patients undergoing orthopedic surgery of the upper limbs.

Design: A Prospective Randomized, Double-Blind, Controlled Study.

Setting: St. Stephen's Hospital, New Delhi, India.

Method: This prospective randomized, double-blind, controlled study was performed on 100 patients of the American Society of Anesthesiologists (ASA) physical status classes 1 and 2 with an age group of 18-65 years of either sex undergoing upper limb orthopedic surgery. Group P (paracetamol) patients have been given 1g paracetamol intravenously 30 minutes before surgery. Group D (diclofenac) have been given intravenous 75 mg diclofenac sodium (in 100 ml 0.9% saline) 30 minutes before surgery.

Result: Personal and clinical characteristics were comparable between the two groups. The mean time between extubation and the need for the first analgesic dose was 75.46±15.72 **minutes in Group P and** 137.12±12.5 **minutes for Group D (p-value =0.002). The number of IV fentanyl (1 mcg kg-1) doses following extubation in the first 6 hours was 1.83±0.21in Group P and 1.20±0.24 for Group D (p-value =0.03). Nausea/vomiting was reported 2 (6.67%) patients in Group D, and 3 (10%) in Group P.**

Conclusion: Pre-emptive administration of diclofenac and paracetamol is cost-effective, and safe method of providing postoperative analgesia for patients undergoing orthopedic surgery of the upper limbs.

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