"COMPARISON OF PEAK EXPIRATORY FLOW RATE AS A MEASURE OF POSTOPERATIVE PAIN RELIEF BY THORACIC EPIDURAL ANALGESIA AND INTRAVENOUS ANALGESIA IN MAJOR ABDOMINAL SURGERIES"

ABSTRACT

Introduction: Anaesthesia and major upper abdominal surgeries alter lung compliance and functional residual capacity resulting from atelectasis. Major abdominal surgeries also cause a decrease in peak expiratory flow rates, cough reflex due to pain limited inspiration.

Aim: This study aimed to compare peak expiratory flow rate in thoracic epidural analgesia and Intravenous analgesia in major abdominal surgeries

Materials and methods: A total of 60 patients posted for elective surgery were enrolled.

Group E – Thoracic epidural block at T6 – T12 with 0.25% Inj.Bupivacaine 2ml / segment and postoperatively 5ml/hour 0.0625% Inj.Bupivacaine with 10microg/hour Inj.Fentanyl via elastomeric epidural infusion pump.

Group I – Intravenous analgesia with intraoperatively Inj.Fentanyl and postoperatively Inj.Paracetamol TDS and Inj.Pentozocine HS. Haemodynamics monitored intraoperatively and post operatively and also VAS pain score, PEFR measurements were done at 24 hours and 48 hours after surgery in both groups.

Results: The SBP and DBP values obtained at 24 and 48 hours ($p<0.001$) postoperative showed highly significant difference between the two groups which indicate better haemodynamic parameters in patients receiving epidural analgesia. Postoperatively the difference in PEFR values at 24 hour, 48 hour were very highly significant ($p<0.001$). Group1 had a 15.739% deficit at 48 hours from its pre operative baseline value while group 2 showed a 32.825 % deficit which was very highly

significant ($p<0.001$). The difference in VAS scores recorded at 24 hours, 48 hours post op were very highly statistically significant ($p < 0.001$).

Conclusion: Epidurally given analgesia is superior and more efficacious in relieving post-operative pain from major abdominal surgeries, thus, improving post-operative pulmonary dysfunction and maintaining stable haemodynamic than the intravenously given opioids and NSAIDS.