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COMPARISON OF ORAL PREGABALIN AND PARACETAMOL AS PRE-EMPTIVE ANALGESIC IN PATIENTS UNDERGOING SEPTOPLASTY

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ABSTRACT Effective management of postoperative pain leads to increased patient satisfaction; earlier mobilization and reduced hospital stay. One of the methods used for management of postoperative pain is pre-emptive analgesia -blockade of afferent nerve fiber before surgical stimulus. Aim of this study was to evaluate the efficacy of preemptive Pregabalin and Paracetamol and comparison between the two.

Material and methods- The study was a prospective randomized, double blind control study conducted on 60 patients undergoing elective septoplasty surgery under General anesthesia. Patients aged between 18 to 65 years, belonging to ASA class-I and class-II, were divided into 2 groups of 30 patients each. Group A receive 75ug Pregabalin and group B receive 1gm Paracetmol orally 1 hour before induction of anesthesia.

Result- Intraoperative heart rate and systolic and diastolic blood pressure, VAS score were compared and it was found to be significantly lower in group A compared to group B.Ramsay sedation score was significantly higher in group A compared to group B until 8 hours post operatively.

Conclusion- pre-operative administration of oral Pregabalin 150mg was an effective and a safe adjuvant for acute pain after surgery compared to oral Paracetamol 1000 mg. Pregabalin reduces the postoperative pain score and total analgesic consumption along with sedation and there were no other significant side effects in the postoperative period.

KEYWORDS : pre-emptive analgesia, Pregabalin, Paracetamol, postoperative.

INTRODUCTION

After any surgery patients continue to experience unacceptably high levels of pain post operatively, which is generated through multiple mechanisms[1] Effective management of postoperative pain leads to increased patient satisfaction; earlier mobilization and reduced hospital stay. One of the methods used for management of postoperative pain is pre-emptive analgesia -blockade of afferent nerve fiber before surgical stimulus[2].

Based on the multimodal post-operative pain management concept, recent studies shows that use of pre-emptive Paracetamol or Pregabalin are an effective adjuvant in treatment of post-operative pain and decreases the post-operative opioid use.[3,4] Aim of this study was to evaluate the efficacy of preemptive Pregabalin and Paracetamol and comparison between the two.

METHODS AND MATERIALS

The study was a prospective randomized, double blind control study conducted on 60 patients undergoing elective septoplasty surgery under General anesthesia in Father Muller Medical College Hospital, Mangalore from July 2016 to July 2018.The randomization was done by using sealed envelope method and 60 patients, who met the pre-defined inclusion criteria were chosen for the study. The study was initiated after obtaining clearance from ethical committee. Written informed consent was obtained from all the patients included in the study.Patients aged between 18 to 65 years, belonging to ASA class-I and class-II, were divided into 2 groups of 30 patients each. Group A-received Pregabalin 150 mg orally 1 hour prior to surgery with 3ml of water.

Group B -received Paracetamol 1gm orally 1 hour prior to surgery with 3ml of water.

General anesthesia technique was standardized to all patients. All patient premeditated with fentanyl 2 ug/kg and Glycopyrolrate 0.02mg/kg. After pre-oxygenation for 3 minute, anesthesia was induced with propofol 2mg/kg. Inj. Succinyl scoline 1.5-2mg/kg given to facilitate laryngoscopy and intubationAfter 90seconds, intubation done using laryngoscope with a Macintosh blade, with appropriate sized cuffed oral endotracheal tube. After confirming the tube position, cuff was inflated, tube fixed and connected to the ventilator. Vecuronium bromide was used as loading 0.1mg/kg and maintenance 0.02mg/kg as muscle relaxant

Depth of Anaesthesia was maintained with oxygen 33% nitrous oxide 66% and isoflurane 1 MAC on controlled ventilation. At the end of surgery residual neuromuscular blockade was reversed using neostigmine 0.05mg/kg, Inj. Glycopyrolate 0.02mg/kg. Extubation was performed after adequate recovery of muscle power and shifted to postoperative room.

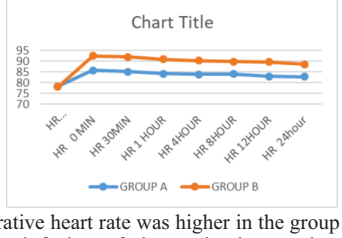
RESCUE ANALGESIA.

If visual analogue score more than 3, rescue analgesia was given in the form of Inj.Tramadol 1mg/kg.Time of first rescue analgesic and total amount of analgesic given over 24hours was noted.

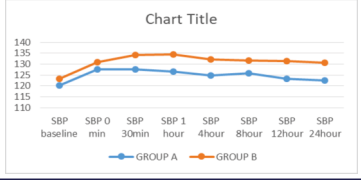
Postoperative sedation assessed with Ramsay sedation score (RSS) and adverse events noted.

RESULT

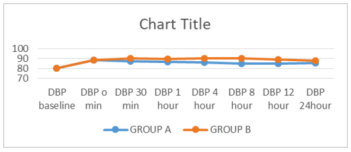
The mean age of patient was 32.06 (SD ± 11.23) years. The three groups were comparable on the basis of gender, duration of surgery, and ASA grade. Intraoperative heart rate and systolic and diastolic blood pressure were compared and it was found to be significantly lower in group A compared to group B. In our study we found that the difference in visual analogue score in groups A and B was statistically significant (<0.005). The time of first rescue analgesia (264 mins Group A vs. 156mins Group B) and total opoid consumption in the 24 hours period post operatively (tramadol 115 mg Group A vs. 168.5mg Group B) was significantly lesser for group A compared to group B. Ramsay sedation score was significantly higher in group A compared to group B until 8 hours post operatively. We confronted nausea and vomiting in 3 cases of which, 2 were in group A and one in group B. No other significant side effects were noted.

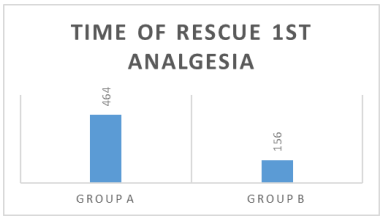


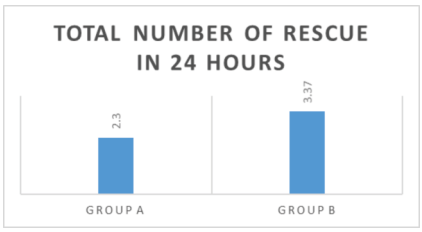
The post-operative heart rate was higher in the group B compared to group A after infusion of the study drug and was statistically significant.



The mean systolic blood pressure among the two groups was compared and was found that the group B had higher SBP which was statistically significant.







The time required for first rescue analgesia in group B was early compared to group A and which was statistically significant (p value less than <0.05).

The total number of rescue analgesia requirement was more in group B compared to group A and which was statistically significant (p value less than <0.05).

CONCLUSIONS

Based on the finding of the study, we can conclude that pre-operative administration of oral Pregabalin 150mg was an effective and a safe adjuvant for acute pain after surgery compared to oral Paracetamol 1000 mg.

Pregabalin reduces the postoperative pain score and total analgesic consumption along with sedation and there were no other significant side effects in the postoperative period.

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