Pre-f-mptive and gesia with tramadol comp arative study between intamuscular intravenous and epidural routes

Ahmed Mohammed Mahmoud Al-Behesy

SummaryThe idea behind preemptive analgesia is to head off pain by blocking the central nervous system’s response before surgery occurs, ”If you stub your toe, portions of the foot might hurt for days because the blow sensitizes that part of the nervous system,”As it prevents the development of central sensitization caused by incisional and inflammatory injuries.Tramadol is formulated as racemic mixture of two enantiomers .It is the phenylpiperidine analogue of codeine. Its mode of action is threefold .It binds to and activate the opioid receptors with a 20 –fold preference to mu receptor . It also inhibits the neuronal reuptake of norepinephrine , potentiate the release of serotonin and causes descending inhibition of nociception.The aim of the study is to compare tramadol effect via intramuscular , intravenous and epidural routes on haemodynamics ,stress hormones and pain scores (VAS) , for 90 patients scheduled for lower abdominal operations ASA class I and II .Group I: Intramuscular groupTramadol 100 mg was given 30 minutes before the induction of general anesthesia .Group II: Intravenous groupTramadol 100 mg was given before induction of general anesthesia.Group III: Epidural groupTramadol 100 mg diluted in 8 ml normal saline was given before induction of general anesthesia.Anesthesia technique:Induction:• Propofol 2 mg/kg i.v.• Rocuronium 0.6 mg /kg i.v.Intubation with a cuffed endotracheal tube .Maintenance:• O2 35-40 % with N2O 60-65%• isoflurane 1.2 – 1.5 %.No narcotic analgesic was given during maintenance of anesthesiaResults: there was significant statistical difference between the three groups regarding the mean arterial blood pressure, heart rate, VAS, stress hormones levels and time To first rescue analgesics, where the epidural group shows the least pain scores, levels of stress hormones variability and haemodynamic changes.Conclusion: 100 mg. of epidural tramadol had achieved better results as preemptive analgesic than did the intravenous and the intramuscular routes.