

S11 PREEMPTIVE EPIDURAL ADMINISTRATION OF MORPHINE FOR ORTHOPEDIC SURGERY IN DOGS – CASE REPORT

Todor Novakov*, Ksenija Ilievska, Elena Atanaskova Petrov,
Plamen Trojancanec

University Veterinary Clinic, Faculty of Veterinary Medicine, Skopje

Introduction: Epidural administration of opioid drugs is a relatively new technique which is used to provide intra- and post-operative analgesia. These include the provision of anaesthesia for such procedures as orthopaedic surgery of the hind limb. The various drugs and their combinations which may be used for epidural administration are outlined in the literature. Morphine is the drug of choice for this indication.

Material and Methods: Two dogs were admitted at the University veterinary hospital in Skopje for orthopaedic surgery of the hind limb. Each dog received epidural 0,1mg/kg Morphine chlorhydrate 0.1 mg/kg diluted in sterile isotonic saline (0.9% NaCl) solution (0.2 ml/kg). Dogs were pre-medicated with 0.2mg/kg Meloxicam s/c, 2mg/kg Tramadol i/m and 0.2mg/kg Diazepam i/v. Surgical anesthesia was induced with Propofol and maintained with Isofluran. Heart rates and respiratory rates were recorded intra-operatively and post-operatively. During the intraoperative period, an increase of baseline values for HR, RR was considered as a sign of intraoperative pain. Signs of pain and adverse effects were assessed at 1, 2, and 3 hours postoperatively. The effects of epidural administration of morphine were evaluated during surgery by recording the delivered fraction of isoflurane, as indicated by the vaporizer. After surgery, the effects of epidural morphine administration were evaluated by use of a simple scoring system based on behavioral changes (4=appears to be comfortable; 3=mild discomfort, moving; 2= painful, restless; 1=painful, whining; 0=unsolicited howling, stupor or hyperesthesia).

Results: Heart rates and respiratory rates during intraoperative period were slightly (20%) elevated in the first 40 minutes of epidural administration of Morphine. The delivered fraction of isoflurane was reduced to 2.0-1.5% in dogs following epidural administration of morphine. Post-operative signs of pain and adverse effects were not recognized in both patients.

Conclusion: Epidurally administered morphine produce long-lasting analgesia by using a dose that is only 20–40% of the typical intravenous or

intramuscular dose. Administration of epidural opioids can reduce the (MAC) requirement of inhaled anesthetic agents. In addition to surgical analgesia, epidural administration of opioids provides reliable postoperative analgesia for up to 24 h. Presurgical epidural opioid administration is associated with a significant reduction in the administration of additional analgesics in the postoperative period.

Key words: dog, epidural analgesia, morphine