



## USE OF HYDROMORPHONE AND ALFAXALONE ON THE ANESTHETIC PROTOCOL FOR DOGS: AN INTERNATIONAL EXPERIENCE REPORT

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Hydromorphone is an opioid used in animals for analgesia and sedation. This drug is an  $\mu$  agonist with effects similar to those of morphine, however, it is approximately 10 times more potent and should be used at lower doses. This drug also has a low risk of histamine release. Alfaxalone is a synthetic neuroactive steroid that induces anesthesia by activating gamma-aminobutyric acid receptors. This medication has minimal respiratory and cardiovascular depression. Despite its beneficial characteristics, its use is limited in Brazil. The aim of this study is to report the experience lived outside the country, showing the clinical use of hydromorphone and alfaxalone as part of the anesthetic protocol for dogs. For this purpose, the anesthetic sheets of four dogs were analyzed in which it was possible to monitor the use of these medications. In extracurricular internship, held in January 2020, at Oswego Animal Hospital, which is located in the suburb of Chicago, United States, it was possible to monitor the performance of four orchietomy (2) and ovariohysterectomy (2) procedures in dogs, using hydromorphone (0.05 mg/kg, subcutaneous) as preanesthetic medication, associated or not with dexmedetomidine (3 mcg/kg, intramuscular), and subsequent anesthetic induction with alfaxalone (2 mg/kg, intravenous). Anesthesia was maintained with isoflurane. The same protocol was used to all of the four young dogs, who were between six weeks and seven months old. The procedures lasted from 50 to 90 minutes. The dogs had a good recovery, not needing any emergency drugs during surgery. The parameters monitored during anesthesia remained within the physiological for the species. One of the dogs presented vomiting after hydromorphone administration, however, this medication may cause this effect in some animals since it stimulates the center of the emesis. It is concluded that hydromorphone and alfaxalone are good drug options to compose an anesthetic protocol for dogs. Moreover, as these medications are not used in the routine of anesthetic procedures in Brazil, it was a unique and great experience to be able to accompany the animals under the effect of these drugs, whose knowledge, until then, was only theoretical.

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