Anesthetic Protocol For The Surgery On A Chimpanzee (Pan troglodytes)

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Abstract

An anesthetic protocol was designed for a 19 year-old mature male chimpanzee whose anesthetic risk was classified as ASA 3. His body weight was 65 kg. The scheduled surgical intervention was an amputation of the opposed finger of the right inferior extremity due to osteomyelitis caused by trauma with partial exposition of the phalange. The infection was approximately 10-12 days old.

CASE REPORT

Premedication was carried out through a dart injection. 300mg tiletamine-zolazepam was administered intramuscular (i.m.). After 10 minutes, the animal could be transferred to the presurgery room (very good muscular relaxation).

An intravenous catheter nº 20 gauge was placed in the left ulnar vein and an infusion was initiated with physiologic solution 0,8% at 10 ml/ kg/hr. Local infiltration was carried out with lidocaine 2% in the tarsus at the level of the malleolus (nervus tibialis anterior) and plantar (n. fibularis profundus and n. plantaris internus) of the affected extremity.

Induction was performed with intravenous (i.v.) propofol 1mg/kg and midazolam 0,1 mg/kg.

Endotracheal intubation was performed with a rect branch laryngoscope and endotracheal tube nº 8 for assisted respiration. Protocol was planned for maintenance of anesthesia (parenteral anesthesia). A butorphanol infusion was initiated at 10g/kg/hr. Bradypnea was noticed and assisted ventilation initiated.

The hemodynamic function remained stable, with light bradycardia at the beginning of the surgical intervention. The intrasurgical measures are shown in Table 1.

The intrasurgical antibiotic therapy was carried out with metronidazol (20 mg/ kg) and ciprofloxacine. The postoperative hemodynamic and respiratory recovery was uneventful.

The patient received ketorolac (0,3 mg/kg) i.m. every 12 hours. Ciprofloxacine was prescribed for 10 days orally. The slow recovery from anesthesia was intentionally to avoid removal of the protective bandages (slow tiletamine and butorphanol elimination). Twelve hours after surgery the patient recovered completely. Seventy-two hours after surgery, the bandages were changed and the wound looked good. The animal was tranquilized with ketamine (4 mg/kg) i.m. for the dressing change.
References

2. La Motte C. Distribution of the tract lissauer and the dorsal root fibers in the primate spinal cord J. Comp Neurol 172:529, 1977.
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