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Proximal mandibular nerve block using electrolocation in 10 dogs undergoing mandibular surgery: a case series report.

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Abstract

Peripheral nerve block performed using electrical stimulation (i.e. electrolocation) is widely used for perioperative pain management during several surgical procedures in dogs (Campoy 2008), but few data are reported concerning its application to invasive maxillofacial surgery (Carotenuto et al 2011). The aim of this case series report is to evaluate the efficacy of proximal mandibular nerve block (PMNB) in perioperative pain management in dogs undergoing mandibulectomy. Ten dogs of various breeds, (six spayed females and four neutered males of 10.35±3.09 years and mean weight of 19.56±15.19 kg) presenting either neoplasia or mandibular fracture and scheduled for mandibulectomy were premedicated with intramuscular acepromazine maleate (0.02 mg/kg); after induction of general anaesthesia, bilateral PMNB was performed with ropivacaine 0.75% (2 mg/kg) inserting the stimulated needle in temporomandibular joint direction. Whenever intraoperative nociception occurred, intravenous rescue analgesia was provided (fentanyl 3 µg/kg). Carprofen was administered subcutaneously as a sole postoperative treatment (3 mg/kg) and postoperative analgesia was assessed for at least 24 hours by a blind operator, accordingly to the Glasgow composite pain scale (Reid et al 2007); when it overcame a threshold of 5/24, intravenous rescue analgesia was administered (methadone, 0.2 mg/kg). In eight out of ten dogs no intraoperative nociception was shown, while in two dogs a single intravenous fentanyl administration was sufficient to provide additional analgesia. No acute and medium term complications were observed and postoperative analgesia lasted for 20.5±6.1 hours. PMNB seems to provide effective perioperative long-lasting analgesia leading to a reduction in intra- and postoperative drug administration.

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