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TITLE
POST OPERATIVE INTRANASAL PAIN TREATMENT IN A MINIATURE PIG

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CONTENT
Background
Drugs administration through the intranasal route could offer considerable advantages, namely painless and rapid administration, compared to other treatment routes. To the authors' knowledge, this is the first case report documenting the use of intranasal buprenorphine for the treatment of post-operative pain in miniature pigs.
Material & Methods
An uncooperative miniature pig was presented at the clinic because of an extensive mass on the lower left jaw. The clinical and further examination revealed a root abscess of the left tusk and therefore a surgical extraction of the teeth was performed. To provide analgesia, butorphanol 0.2 mg kg-1 and metacam 0.4 mg kg-1 were intravenously administrated before and immediately after the surgery, respectively. The day after surgery, the pig did not drink and eat, and showed severe pain-related by behavior but it was not possible to administer further analgesia without inducing high levels of stress. In order to provide pain relief, an intranasal administration of buprenorphine 30 mcg kg-1 every 12 hours was attempted with a nebulizing device applied on a syringe. The drug was equally divided in both ventral nasal conchae without fixation of the animal. Pain was scored with a modified visual analogue scale, ranging from 0-500mm (higher score indicating more severe impairment or pain).
Results
The treatment was well accepted by the animal. Within one hour after the administration, the pain-related behavior significantly improved from 440mm to 110mm. The following three days, further administration of intranasal buprenorphine were performed every 8 hours, with the same outcome.
Discussion & Conclusion
The intranasal route is a feasible, easy and effective way to administrate analgetic drugs in aggressive pigs and to improve their welfare. Further studies are needed to investigate the efficacy of different analgesic drugs after intranasal administration in pigs for post-operative pain control.