MIS-PP-13

TITLE

FATAL OUTCOME OF CHEMICAL IMMOBILIZATION IN TWO MANGALICA PIGS

Nicole Studer[1], Corinne Gurtner[2], Heiko Nathues[3], Alexander Grahofer[3]

[1] *Clinical Anesthesiology, Vetsuisse Faculty, University of Bern, Switzerland*
[2] *Institute of Animal Pathology, Department of Infectious Diseases and Pathobiology, Vetsuisse Faculty, University of Bern, Switzerland*
[3] *Clinic for Swine, Vetsuisse Faculty, University of Bern, Switzerland*

CONTENT

Background

Chemical immobilization of uncooperative animals increases the risk for complications. In order to further investigate the reproductive tract of two feral managlica pigs, both received a general anaesthesia .

Material & Methods

Both adult animals were fasted for 12 hours, before they received following medication intramuscularly to induce general anaesthesia: 0.1mg/kg detomidin, 10mg/kg ketamine and 0.2mg/kg butorphanol. The pigs reached an adequate level of general anaesthesia without problems. A continuous monitoring of the vital parameters was conducted, revealing a slight increase in body temperature of both animals. Therefore, the animals were cooled with running 6 °C water over the body for twenty minutes. After roughly one hour, atipamezol 0.2mg/kg was administered intramuscularly to accelerate the recovery from general anaesthesia. During the recovering period, the pig showed signs of excitement with tachypnoea and vocalization, but after 45 minutes, the animals were calm and able to walk. On the following day, both pigs showed a slightly reduced general condition. Both pigs died with respiratory depression within 24 hours of chemical immobilization for unknown reason.

Results

A pathological investigation of the boar revealed diffuse, acute and monophasic degeneration and necrosis of the muscle. This finding indicates a capture myopathy, nutritional myopathy, or the malignant hyperthermia of pigs. Blood samples taken under general anaesthesia were analysed. No abnormalities were found by haematology and serology. In addition, Vitamin E and selenium were tested, revealing a normal concentration. Genetic analysis is still on-going.

Discussion & Conclusion

In this case, it is possible that an adverse drug reaction secondary to genetic or also individual variability led to the fatal outcome of the chemical immobilization. It is known that butorphanol can cause severe side effects, such as dyspnea and excitation. Therefore, further research is needed to prove and understand the severe side effects of butorphanol in pigs.