A comparison study between intranasal and intramuscular application of ketamine, detomidine and diazepam

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Injectable drug combinations such as ketamine and xylazine are often used to produce anesthesia in rabbit. While generally effective, there is considerable variation in the depth and duration of anesthesia. Therefore, attempt to use other drug combination and route of administration is continued. The aim of this study was to compare the effect of an anaesthetic combination given either intramuscularly (IM) or intranasally (IN) in rabbit. For this purpose 12 rabbits with average weight of 1.3 ± 0.25kg were randomly assigned to two groups of six animals each. A combination of ketamine (30 mg/kg), detomidine (8 μg/kg) and diazepam (2 mg/kg) was given to rabbits in group one and two via intranasal or intramuscular route, respectively. Atropine (0.04 mg/kg) administered as a preanesthetic 5 min prior to test substance administration. For intranasal administration, all drugs were diluted to a final volume of 0.5 ml/kg BW and an equal volume was administered with a catheter-tipped syringe into each nostril. Physiological parameters including heart rate, respiratory rate, body temperature and blood pressure were measured throughout anesthesia. Time to onset and duration of anesthesia were measured and loss and return of palpebral, pedal and righting reflexes were recorded. The results showed that the animal receiving drugs via IM had shorter onset of anesthesia, longer duration and recovery compared to the other group (P<0.05). Animals of both groups recovered without any complication. These data suggest that this combination and both administration routes are useful for induction and maintenance of anesthesia in rabbit. Keywords: Intranasal, Intramuscular, anesthesia, combination, ketamine, detomidine, diazepam

In vitro study on effectiveness of common antibiotics on E. coli isolated from chicken with CRD complex

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Escherichia coli were collected aseptically from the heart of 126 chicken suspected of CRD complex. Of 126 escherichia coli 115 were from broiler and 11 isolates were from pullets. These isolates were separately tested for their sensitivity to different antibacterial drugs by using agar disk diffusion method. The results showed that the Escherichia coli isolates were comparatively more sensitive to lincomycin and chloramphenicol (up to 60%). The isolates were highly resistant to enrofloxacin, flumequin, tetracyclin, amoxycillin, sulfamethoxazol-trimethoprim and neomycin (up to 50%). The result showed that the most isolates were resistant to 6 antimicrobial agent and sensitive to 2 antimicrobial agent. In neither pullets nor broilers there was a significant difference in this study.

Keywords: Antibiogram, E. coli, Antibiotics, Broiler, Pullet, CRD complex