

Effects of Midazolam on Ketamine-Xylazine Anesthesia in Guinea fowl (*Numida meleagris galeata*)

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Abstract

To determine the effect of midazolam on ketamine-xylazine anesthesia, 20 guinea fowl (*Numida meleagris galeata*) were randomly divided into 2 groups. Birds in group KX were anesthetized with ketamine (15 mg/kg IM) and xylazine (2.5 mg/kg IM), whereas the birds anesthetized in group KXM received midazolam (0.3 mg/kg IM) in addition to the ketamine and xylazine protocol. The onset of anesthesia, duration of analgesia, duration of recumbency, and recovery time were determined. Heart and respiratory rates as well as cloacal temperatures were recorded immediately after drug administration and at 10-minute intervals until the birds were sternally recumbent. Analgesia was assessed as a response to artery forceps applied to the digit and skin proximal to the tarsal joint. The mean (SD) duration of analgesia in the group KXM birds was 37.4 [+ or -] 23.5 minutes, whereas no analgesia was apparent with the group KX birds. The duration of recumbency was significantly longer and respiratory rates were significantly lower in group KXM birds compared with those in group KX. Adverse effects were minimal and included diarrhea (n = 1) and hypersalivation (n = 2) in group KX birds, and regurgitation (n = 2) in group KXM birds. Midazolam administered intramuscularly appeared to improve the anesthetic quality of ketamine and xylazine in guinea fowls without adversely affecting safety.

Keywords: anesthesia, analgesia, midazolam, ketamine, xylazine, avian, guinea fowl, *Numida meleagris galeata*
