Use of Meloxicam in Raptors

Uses/Indications: non-steroidal anti-inflammatory drug (NSAID), analgesic

Dosage:

- ***Standard dose***: 1 mg/kg BID; continue for as long as clinically indicated

- ***Severe trauma case dose*** (e.g., severe head trauma, severe internal trauma, fractures, severe soft tissue trauma): 2 mg/kg BID for 5-7 days, then decrease to standard dose

The above dosages are applicable to all raptor species (owls and diurnal).

Route of Administration:

- *Injectable*
    - Subcutaneous (SC)
        - Preferred (less painful); administer in the inguinal fold (can be administered into a subcutaneous fluid pocket).
    - Intramuscular (IM)
- *Oral (PO)*
    - Administer PO either directly via oral syringe or in food once bird is eating on their own.

Dosing Frequency:

- Meloxicam is more quickly metabolized in raptors compared to other avian species; therefore, SID dosing is NOT appropriate in cases in which significant constant inflammation/pain is anticipated (e.g., trauma, post-operative, etc.)
    - RTHAs have the shortest meloxicam half-life (0.49 +/- 0.5 hours) of any species recorded to date.
    - GHOWs also have a short meloxicam half-life (0.78 +/- 0.52 hours).
- Once daily (SID) dosing is appropriate for post-procedural pain relief (e.g., following physical therapy).

Safety:

- Tolerance studies performed in American Kestrels utilizing doses of 20 mg/kg BID for a 7-day period showed no significant changes on necropsy.
- Anecdotally, meloxicam is frequently administered to raptors for periods of 1-2 months without evidence of associated clinical issues.

Sources

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- Mancinelli. Pharmacokinetics of meloxicam in rabbit, bird, and reptile species. 2016.
- Summa, et al. Evaluation of high dosages of oral meloxicam in American kestrels (*Falco sparverius*). *Journal of Avian Medicine and Surgery* 31 (2): 108-116, 2017.
- The Raptor Center- University of Minnesota College of Veterinary Medicine.

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