Baseline methodology and recommendations for development of research projects for the screening of veterinary drug residues in avian scavengers

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“Diclofenac and other non-steroidal anti-inflammatory drugs (ketoprofen, carprofen, flunixin) in avian scavengers in the Iberian Peninsula”
OBJECTIVES

1. Identify the scope of diclofenac and other NSAIDs use in livestock in the Iberian Peninsula

Surveys to livestock vets and vulture feeding stations to estimate the scope of diclofenac and NSAIDs use, and evaluate knowledge levels around the risk presented to avian scavengers

- Most veterinarians unaware of the risk that NSAIDs pose on vultures
- Feeding station managers aware of the risk
- Low use by veterinarians of diclofenac
OBJECTIVES

2. Evaluate diclofenac and other NSAIDs residues, and histopathological lesions in vulture carcasses

Liver/kidney/brain/stomach content from dead vultures + necropsy + multi-organ histopathological evaluation
OBJECTIVES

3. Evaluate diclofenac and other NSAIDs residues in domestic animal carcasses provided at vulture feeding stations

Vulture feeding stations were selected and kidney, liver and skeletal muscle samples obtained from carcasses
Drug residues in avian scavengers in the Pyrenees with special emphasis on the bearded vulture (*Gypaetus barbatus*)
2. Study of the presence of diclofenac and other anti-inflammatory drugs in blood samples of griffon vulture (*Gyps fulvus*)
NEW PROJECT PROPOSAL

Integration of livestock farming practices into conservation of avian scavengers under natural and intensive management conditions: food, pharmaceuticals and health
OBJECTIVES

1. Evaluation of livestock practices that determine carrion resources, related foraging places (carcass dumps vs. the countryside) and diet of vultures

2. Evaluation of the prevalence of pathogens in scavengers, its potential origin in livestock carcasses, and their effects on condition and disease

3. Analysis of vet. drugs in carrion and scavengers with special interest in NSAIDs

4. Study of existing gaps on the mechanisms of pathogenicity of NSAIDs in avian scavengers
MONITORING DRUG RESIDUES

- Assessment of farming practices and feeding sites
- Analysis of carrion from livestock of different geographical areas to know the scale of the problem in different scenarios
- Exposure of avian scavengers
  - Dead
  - Adults sampled in the wild
  - Nestlings
  - Animals used for captive breeding prog.
Thank you for your attention!