Selected Abstracts From the Literature


The objective of this study was to determine the pharmacokinetics of doxorubicin in sulphur-crested cockatoos (Cacatua galerita), so that its use in clinical cases in birds can be considered. A pharmacokinetic study of doxorubicin following a single intravenous (IV) infusion, over 20 min, was performed in 4 healthy sulphur-crested cockatoos. Birds were anesthetized, and both jugular veins were cannulated, one for doxorubicin infusion and the other for blood collection. Doxorubicin hydrochloride (2 mg/kg) in normal saline was infused IV over 20 min at a constant rate. Serial blood samples were collected for 96 h after initiation of the infusion. Plasma doxorubicin concentrations were assayed using an HPLC method involving ethyl acetate extraction, reverse-phase chromatography, and fluorescence detection. The limit of quantification was 20 ng/ml. Established nonparametric methods were used for the analysis of plasma doxorubicin data. During the infusion the mean ± SD for the Cmax of doxorubicin was 4037 ± 2577 ng/ml. Plasma concentrations declined biexponentially immediately after the infusion ceased. There was considerable intersubject variability in all pharmacokinetic variables. The terminal (β-phase) half-life was 18.5 min, the systemic clearance (CI) was 18 ml/min per kilogram, the mean residence time (MRT) was 1.4 min, and the volume of distribution at steady state (V(SS)) was 131 ml/kg. The extrapolated area under the curve (AUC[0–infinity]) was 677 ng/ml. The reduced metabolite, doxorubicinol, was detected in the plasma of all 4 parrots but could be quantified in only 1 bird, with the profile suggesting formation rate-limited pharmacokinetics of doxorubicinol. Doxorubicin infusion in sulphur-crested cockatoos produced mild, transient inappetence. The volume of distribution per kilogram and terminal half-life were considerably smaller, but the clearance per kilogram was similar to or larger than reported in the dog, rat, and human.


The objective of this study was to determine whether free-living waterfowl residing in a zoological setting pose health risks for its animal collection, visitors, and employees. Four-hundred and fifty fecal samples were collected and cultured for the presence of Campylobacter jejuni, Escherichia coli, Salmonella sp, and Pasteurella multocida. A survey of endoparasites infecting the waterfowl was also conducted. Sixty-seven percent, 42%, and 1.7% of the samples tested positive for *E. coli*, *C. jejuni*, and *Salmonella* sp, respectively. No *P. multocida* was isolated from the sampled population. Antimicrobial susceptibility testing for the bacterial isolates demonstrated that a majority of the isolates was susceptible to the antibiotics tested. A survey for parasites revealed that 16% of the samples had coccidia oocytes, 8% of the samples had spirurid ova, and 17% of the samples had strongyle-type nematode ova. *Ascaris* sp ova, *Capillaria* sp ova, oxyurid ova, and mites were also noted in some fecal samples.


Long known as a pathogen of poultry, *Mycoplasma gallisepticum* (MG) was first detected in house finches in 1994. The disease rapidly spread throughout the eastern United States and Canada and was associated with debilitating disease and high mortality in house finches. However, in the late 1990s, the proportion of infected finches dying as a result of infection with MG decreased, and asymptomatic infection was more common among wild birds than in the past. We documented MG infections in breeding house finches and concluded that adults of both sexes transmit the infection to dependent young, probably after hatch. MG infections of breeding adults occurred late in the breeding season and were found in birds completing significantly more nests than birds that never tested positive for MG, implying that higher rates of reproduction carry a cost in the form of increased risk of infection. We found evidence of an MG-induced delay in dispersal of nestlings from their natal area and demonstrated a significant impact of infection on nestling growth.


 Nasal turbinates or choanal cleft tissues from domestic turkeys and wild birds were examined for the presence of avian pneumovirus (APV) RNA by reverse transcriptase-polymerase chain reaction (RT-PCR). Serum samples from domestic turkeys were analyzed for APV antibodies by enzyme-linked immunosorbent assay (ELISA). In 2002, the seroprevalence of disease in domestic turkeys in Minnesota remained high (42.3% of the flocks). In addition, there is evidence the disease has spread to turkey...