Selected Abstracts From the Literature


The weight and growth index of bursa of Fabricius, thymus, and spleen were significantly reduced (P < .05 or P < .01) in zinc (Zn)-deficient ducks (Zn 22.9 mg/kg diet) when compared with normal ducks. The Gd/G1 phase of the cell cycle of the bursa of Fabricius, thymus, and spleen was much higher, and the S and G2/M phases lower in Zn-deficient ducks than in the controls. Histopathologically, there was lymphocyte degeneration and depletion of lymphoid organs, and the reticular cells of thymus were also degenerate or necrotic in the Zn-deficient group. The results demonstrated that Zn deficiency seriously inhibited the growth of lymphoid organs and caused marked pathology in the lymphoid organs. The results also showed that the effect of Zn deficiency on the primary lymphoid organs occurred earlier than on the secondary lymphoid organs. The effect of Zn deficiency was greatest on the bursa of Fabricius, followed by the thymus, and then the spleen.


An experimental pigeon paramyxovirus (pPMV-1) infection was followed by reverse transcription-nested polymerase chain reaction for 31 days after infection in 16 organs of inoculated or contact pigeons (Columba livia) naturally infected with Salmonella typhimurium. With 2 exceptions, both groups presented similar results. Typical nervous signs and green diarrhea were observed. The spread of pPMV-1 was relatively quick, all organs being largely positive at 4 days after inoculation or contact. The lungs, spleen, ecac tonsils, kidneys, and brain, for which almost all tested samples remained positive during most of the experiment, seemed to be the principal targets for virus persistence. However, the virus was significantly recovered later in the brain parts and for longer in the trachea of the contact pigeons than of the inoculated ones.


Although Cryptococcus laurentii has been isolated from fresh droppings and cloacal samples from feral pigeons (Columba livia), it has never before been associated with an actual disease condition in birds. This case study deals with the first report on C laurentii associated with feather loss in a glossy starling (Lamprotornis chalybeus). The bird exhibited patchy feather loss, especially around the back and beak area, and greyish crusts sticking quite firmly to the underlying skin. The feathers had a greasy appearance and disseminated a musty odor. Treatment was installed with fluconazole in the drinking water. One month following the onset of treatment, the condition of the plumage had markedly improved.


In the winter of 2001, 4 ringed kingfishers (Megaceryle torquata torquata) were imported from Iquitos, Peru, for the zoological garden Faunia in Madrid. Two individuals were necropsied, and infections by the digenean trematode Pulchrosoma pulchrosoma were discovered inside granulomas located in the lung, trachea, and celomic cavity. The life cycle of this trematode species is unknown. In one case, the host maintained the parasite infection for at least 5 months, which represents a relatively long prepatency period. Moreover, the body locations in the hosts may suggest that the parasite is able to actively cross the lungs from the celomic cavity to propagate.


Published reports and our own diagnostic data on the avian host range of avian Chlamydophila spp. are presented in an attempt to provide evidence for the large number of bird species that have been naturally infected with chlamydia. The term “chlamydia-positive” is based on either isolation of the organism and antigen detection or on serological detection of circulating antibodies. The list of chlamydia-positive birds contains the 6 major domestic species (chicken, turkey, Pekin duck, Muscovy duck, goose, and pigeon), the 3 minor domestic species (Japanese quail, bobwhite quail, and peafowl) and a total of 458 free-living or pet bird species in 30 orders. The order Psittaciformes contains by far the most (153 of 342; 45%) chlamydia-positive bird species. More than 20% of all species per order are positive for chlamydia in the orders Lariformes (gulls, 26 of 92 species; 28%), Alciformes (alcids, 6 of 23 species; 26%), Sphenisciformes (penguins, 4 of 16 species; 25%), and Anseriformes (ducks and geese, 33 of 157 species; 21%). Only 5% of all bird species (14 of 259 species) in the order Phasianiformes (gallinaceous birds) are chlamydia-positive. The