Quebec

Salmonella infection in wild birds from Quebec

An adult house sparrow (*Passer domesticus*) with severe bilateral conjunctival swelling was admitted to a rehabilitation center. The bird received topical antibiotic therapy but died within 36 h. Necropsy revealed severe bilateral distension of the infraorbital sinuses, with exudate consisting of fibrin, a moderate number of necrotic macrophages, a few heterophils, and colonies of gram-negative bacilli. *Salmonella typhimurium* were isolated in pure culture from the infraorbital sinuses; they were identified using the API 2OE system (Bio-Mérieux Vitek, Hazelwood, Missouri, USA). Results from cultures for *Mycoplasma* spp. were negative.

From 1992 to 1997, 6 cases of *Salmonella typhimurium* infection have been diagnosed by the Quebec branch of the Canadian Cooperative Wildlife Health Centre from a total of 632 submissions of wild birds. Salmonellosis was diagnosed 3 times in individual birds (this sparrow, a great horned owl (*Bubo virginianus*), and a black-legged kitiwake (*Rissa tridactyla*), and in 3 die-offs, 1 involving 38 ring-billed gulls (*Larus delawarensis*) and 2 involving 30 and 8 house sparrows, respectively. The case anamneses were sudden death (3/6), lethargy (3/6), eye swelling (2/6), or diarrhea (1/6). Necropsy findings were poor body condition (6/6), multifocal necrotizing to pyogranulomatous hepatitis (3/6), fibrinopurulent typhlitis (1/6), ingluvitis (1/6), and infra-orbital air-sacculitis (1/6). Concomitant air-sacculitis with intralesional *Aspergillus* spp. was diagnosed in 2/6 cases.

Wild birds are often asymptomatic carriers of *Salmonella* spp. The prevalence of infection ranges from 1.9% in falconiform birds (1) to 8.7% in ring-billed gulls (2). However, clinical avian salmonellosis is seldom reported, except for outbreaks in passerine birds at backyard bird feeding stations and in aquatic birds.

In acute salmonellosis, death can occur without causing gross lesions. In subacute and chronic infections, gross lesions are highly variable and may consist of necrotizing to pyogranulomatous hepatitis, and fibrinopurulent enteritis and arthritis. The diagnosis is confirmed by laboratory isolation and identification of salmonellae. Isolation of *Salmonella* spp. only from the intestine of birds with no lesions generally indicates that the bird was an asymptomatic carrier (3).

It is generally believed that wild birds do not play a major role in the epidemiology of human salmonellosis (2–4). However, when a large number of birds roost at the same site, they may represent a potential health hazard to humans and other animals (4). Birds suspected of having salmonellosis and any material contaminated by their feces should be handled carefully to prevent human exposure.

References

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Manitoba

Detection and characterization of porcine circovirus associated with postweaning multisystemic wasting syndrome in pigs

Postweaning multisystemic wasting syndrome (PMWS) is a recently recognized disease of pigs. The typical clinical signs and pathology have been published (1,2). The disease has been diagnosed in Alberta, Saskatchewan, and Manitoba. An etiologic association of porcine circovirus (PCV) with PMWS has been questioned by some workers, due to the ubiquitous presence of this virus in the pig population. The virus has also been recognized as a natural inhabitant of PK-15 cell lines.

Publications on this virus primarily address the characteristics of PCV isolated from PK-15 cell lines. In 1 of