

Proventricular Dilatation Disease

What species are susceptible to Proventricular Dilatation Disease?

Proventricular dilatation disease or PDD has been reported in more than 50 species, including cockatoos, cockatiels, lovebirds, macaws, parakeets, Amazon parrots, conures, Eclectus parrots, and African grey parrots. Adults appear to be more commonly affected than juveniles.

When was PDD first recognized and what synonyms have been used?

Proventricular dilatation disease (PDD) has been recognized since the late 1970s. Initially, this mystery disease seemed to be limited to macaws, and was termed macaw wasting or fading syndrome. Various terms have also been used to describe the pathologic features of this disease such as neuropathic gastric dilatation, myenteric ganglioneuritis, proventricular and ventricular myositis, psittacine encephalomyelitis and infiltrative splanchnic neuropathy.

What causes PDD?

The cause of PDD remains unconfirmed, however some research has implicated a viral agent.

What are the signs of PDD?

The proventriculus is the glandular portion of the bird stomach. Disease of the proventriculus leads to an inability to digest or absorb food normally. The most common clinical signs of PDD include depression, weight loss, regurgitation, and/or passage of undigested food in the feces. Abdominal distension, lethargy, weakness, diarrhea, scant feces, or an increase in the water component of the droppings have also been reported in some birds. Secondary bacterial and fungal infections are also commonly observed.

When the central nervous system is involved, signs may include wobbliness, abnormal head movements, or seizures. Some affected birds develop central nervous system signs in the absence of gastrointestinal abnormalities.

Disease can progress at a variable rate, however the course of disease in most affected birds occurs over months or up to one year.

How is PDD diagnosed?

A presumptive diagnosis of PDD is based on historical information, clinical signs, and radiographic evidence of a dilated proventriculus or proventricular dysfunction.

Definitive diagnosis of PDD requires the microscopic demonstration of characteristic changes within nervous tissue within the brain or in nervous tissue associated with the gut. Confirming that a live bird has PDD is difficult. In some birds, biopsy of the crop may be used to diagnose the disease. Unfortunately a negative crop biopsy does not rule out the presence of PDD. Biopsy of the stomach (ventriculus or proventriculus) is not recommended since obtaining a biopsy sample from these organs involves significantly more risk.

What can be done for birds with PDD?

Until very recently, all birds with confirmed PDD have died, however use of the non-steroidal anti-inflammatory drug, celecoxib, has been associated with significant improvement in some individuals.

Risk of PDD in your pet bird may be significantly reduced by adopting measures that reduce potential exposure such as quarantine of all newly acquired birds and scrupulous sanitation practices. Although disease does not develop in all exposed birds, isolation of affected birds is also strongly recommended.

References

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