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Signalment: Canary, male, age unknown.

History: Tail went askew/wonky/lopsided, then lost balance. Eating sporadically. Unable to fly or walk. Head/neck twisted upward, stargazing. Then laying down mostly on his back. Listless, despondent. This canary was sick for 3 days. It was brought alive but moribund to our diagnostic laboratory for necropsy in April 2007. Euthanized. This bird was in a privately owned outside aviary in San Francisco, CA, with about 20 more canaries and 8 white doves. By the time this affected bird was brought to our facility for necropsy, 2 canaries were dead already and 2 were sick. Doves were apparently healthy, not showing any clinical signs of illness.

Gross: None significant.

Histopathologic findings: Microscopic lesions were confined to the brain stem. Lesions were observed predominantly within the white matter tract/fasciculi and grey matter nuclei in the pons and medulla oblongata, and consisted of multifocal vacuolation/microcavitation of the neuropil with marked astrogliosis (reactive astrocytosis or astrocytic hypertrophy) and the presence of swollen axons and spheroids. Few cross and tangential sections of nematode larvae were found within the neuropil. The morphology of the larvae was consistent with Baylisascaris sp. From the outside to the inside, the following morphological characteristics of the larvae of this nematode were observed: (1) a thin external cuticle; (2) prominent, single, strongly pointed and flexed dorsal lateral cuticular alae; (3) three hypodermal nuclei visible at the base of the lateral chords just below the cuticle; (4) polymyarian coelomyarian musculature; (5) a large, centrally located and laterally compressed intestine formed by uninucleate columnar cells, each with a thin microvillous brush border and conspicuous basophilic inclusions within the cytoplasm; intestine flanked by (5) prominent, faintly eosinophilic lateral chords supporting (6) triangular-shaped lateral excretory columns; (7) a pseudocoelom filled with polymyarian coelomyarian musculature, lateral chords/excretory columns, and intestine. A total of 31 consecutive (serial) histological sections of the brain divided in two sets were examined. No larvae were found in the first set of slides which consisted of 11 serial sections. Additional 20 serial sections were examined, and larvae of Baylisascaris were found in 12 of these sections. There was no inflammation surrounding the nematode larvae, and the neuropil around these parasites was histologically normal. There were also a small number of mononuclear cells around the blood vessels of the caudal brainstem neuropil (lymphocytic perivascular cuffing) and very few mononuclear cells infiltrating the meninges in this same area.