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NATURAL POX INFECTION IN A COMMON MURRE *(Uria aalge)*

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Abstract: Natural pox infection occurred in a free-living, immature common murre *(Uria aalge)* in northern California. Cutaneous and diphtheritic lesions were present. Death of the bird was attributed to respiratory insufficiency and starvation resulting from impairment of breathing and feeding, respectively.

INTRODUCTION

Avian pox is a common disease of domestic poultry and has been reported in more than 60 species of wild birds representing some 20 families.[6] Reports of spontaneously occurring natural infections of pox in birds belonging to the order Charadriiformes (shorebirds, gulls, auks and their relatives) or in the order Anseriformes (ducks, geese and swans) were not found in the literature.[2-7] Fowl poxvirus has been successfully transmitted experimentally to domestic ducks and geese.[7] This is a report of the natural disease occurrence of the cutaneous and diphtheritic form of pox in a common murre *(Uria aalge)*.

CASE HISTORY

In August, 1977, an immature common murre was presented to the Alexander Lindsay Junior Museum, Walnut Creek, California. The bird had been recovered along the Pacific shoreline near San Francisco, because it was presumed to be infected with an avian poxvirus. When first discovered, the bird was dehydrated, emaciated and moribund. There was no evidence of trauma.

Treatment consisted of tube-feeding with fluids containing sucrose and sodium chloride, and placing the bird in an incubator set at 37.8 C.[1] The bird died a few hours after initial treatment.

The cutaneous lesions were discrete, 5-10 mm, wart-like nodules located on both the upper and lower halves of the beak at the unfeathered portion of the base. The surfaces of the lesions were covered with grey crusts of exudate, and the cut surfaces were creamy white. The oral and nasal mucous membranes were covered with opaque, white, friable and necrotic material. Both nasal cavities and the oral cavity also were filled with the necrotic material. Diphtheritic lesions, as seen in this case, are reported infrequently in wild bird pox infections.[5] Tissues from the cutaneous nodules and from the oral and nasal mucous membranes were processed routinely, sectioned at 5 μm and stained with hematoxylin and eosin.

Both the cutaneous and diphtheritic lesions were characterized microscopically by epithelial hyperplasia and hypertrophy, characteristic acidophilic intracytoplasmic inclusion bodies (Bollinger bodies) and associated inflammatory changes. Poxvirus infection was diagnosed on the basis of the typical gross and microscopic lesions; the virus was not isolated or identified by culture.[2] A thorough necropsy examination of the bird was not possible. Bacteriologic and toxicologic studies were not performed.

The presence of large amounts of necrotic exudate in the nasal and oral cavities resulted most probably in the bird having extreme difficulty in breathing and feeding. The cause of death was most probably due to starvation and partial obstruction of the larynx

causing respiratory insufficiency. The stress of capture undoubtedly accelerated the bird's already deteriorating condition.

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