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Abstract

Sarcocystis spp. are common parasites of wild and domestic animals typically encysting within intermediate host muscle causing subclinical infection. However Sarcocystis spp. can cross the blood-brain barrier resulting in fatal encephalomyelitis, as noted in southern sea otters (Enhydra lutris nereis) and Pacific harbor seals (Phoca vitulina richardsi).1,2,3 There is one report of successful treatment of a phocid with neurologic signs.4 This case series describes an unusual presentation in stranded California sea lions (Zalophus californianus). Between 2001 and 2015, 40 cases of Sarcocystis-associated polymyositis were diagnosed in sea lions admitted for rehabilitation. Of these, 39 were diagnosed post-mortem, but infection was not the primary cause of mortality. One individual with primary sarcocystosis was treated and released.5 In 2016, however, a marked increase in sarcocystosis occurred, with 10 confirmed cases in juvenile and adult sea lions between June and September (7 females, 3 males). Clinical signs included emaciation, severe weakness, and often dyspnea. Ante mortem diagnostics included serology, serum creatinine kinase levels, and muscle biopsy. Anti-coccidial and anti-inflammatory treatment with ponazuril (10mg/kg PO q24hr) and a prednisone taper (starting at 0.2mg/kg IM or PO) was effective in four of five animals treated. One further individual improved markedly with only supportive care. Five animals died or were euthanized and infection confirmed by histopathology. Unlike sarcocystosis in phocids and sea otters, neurological signs were not observed in these sea lions. We conclude that sarcocystic myositis should be suspected when clinical presentation of muscle atrophy is present in California sea lions.

Acknowledgements

The authors wish to thank the many volunteers and staff of the Marine Mammal Center for their time and effort in caring for the animals.

Literature Cited


