
CLINICAL DIAGNOSIS AND MANAGEMENT OF IDIOPATHIC EPILEPSY IN A BLACK RHINOCEROS (*Diceros bicornis*)

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Abstract

Clinical epilepsy is an infrequent diagnosis in zoological collections with the predominance of cases being documented among primates.^{1,2} An 8-yr-old male black rhinoceros (*Diceros bicornis*) with no prior history of illness presented acutely with a series of eight, 2 minute seizures over a 10-hr period. Seizures presented in a predictable pattern of pre-ictal disorientation and hypersalivation, followed by ataxia, erratic head movement, lip curling, and stargazing. Seizure episodes culminated in pelvic weakness and the rhinoceros falling to a “dog-sitting” posture before recovery. Treatment was initiated with anticonvulsants and intravenous phenobarbital (Westward Pharmaceuticals, Eatontown, New Jersey 07724, USA) to control the initial seizures prior to the beginning of oral maintenance therapy. Serology was negative for *Sarcocystis neurona*, *Toxoplasma gondii*, and viral encephalitides, as well as negative for environmental toxicants by gas chromatography. Analysis of feed revealed no contaminants or food-borne pathogens to explain the clinical signs. Based on the signs and laboratory results, a diagnosis of epilepsy was made and treated with oral phenobarbital (Qualitest pharmaceuticals, Huntsville, AL 35811, USA) with dosing gradually decreased from 2 mg/kg to 1 mg/kg over 4 mo. Eight months following the initial presentation, breakthrough seizing occurred. Following rescue therapy with parenteral diazepam (Hospira Inc., Lake Forest, Illinois, 60045, USA), levetiracetam (9.9 mg/kg PO BID, Lupin Pharmaceuticals Inc., Baltimore, Maryland 21202, USA) was added to the maintenance therapy. This case suggests the first known case of seizure disorder in a black rhinoceros and highlights the unique challenges of epilepsy in a megavertebrate.

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