

nasal, oral, and ocular lesions are observed along with a persistent high temperature, enlargement of peripheral lymph nodes, and terminal encephalitis. The diagnosis can be confirmed histologically by demonstrating perivascular, mononuclear cell aggregations in brain, liver, heart, and kidney tissues.

The differential diagnosis should include BVD-MD, Rinderpest, Infectious Stomatitides, IBR, and Pneumonic Pasteurellosis. BVD-MD, Rinderpest, and the Infectious Stomatitides are not accompanied by the typical ocular lesions, lymph node enlargement, or encephalitis and they each have a distinctive histopathology. IBR is not usually fatal, recovery is rapid, the lesions are restricted to the upper respiratory tract and the disease is readily transmitted. Pneumonic Pasteurellosis is not accompanied by oral, nasal, or ocular lesions and responds well to treatment.

Treatment and Control

Because malignant catarrhal fever is caused by a virus, treatment is of little or no value.

Because association with sheep is usually in the history, separation of cattle and sheep herds is recommended and has resulted in the disappearance of the disease in some cases. The introduction of sheep from areas where the disease has occurred should be avoided. Very few animals survive, but those that recover are immune to further infection for four to eight months.

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History as a Diagnostic Aid in Canine Epilepsy

by
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Summary

Diagnosis of the etiology of an epileptic dog involves prudent history acquisition

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coupled with clinical signs, neurological examination, blood chemistry, cerebrospinal fluid evaluation, and urinalysis.

The histories of five clinical cases are presented to show the variations in the amnesia and the significance these variations might have.

Case History #1

A five-year-old intact female coon hound was presented on September 14, 1974. The owner had observed the episodes he called seizures occurring about every ten days to two weeks beginning in July. The severity of the episodes were about the same and inter-seizural duration remained constant.

The owner said the animal would get highly excitable, run around with no preference to either side, go into a convulsion, and then pass out.

Upon closer examination of the convulsion, the animal became tense in all four limbs, trembled, sank into sternal recumbency with her head between her forelimbs, and lay there for a period of time. At no time did the dog lose consciousness, exhibit opisthotonus, tonic or tonoclonic muscle spasms, or subsequent paddling movements. Instead, if the owner called or petted the dog, she would try to respond at any point during the episode.

This history directed attention to the heart, and a diagnosis of syncope due to dirofilariasis was confirmed.

Discussion

One must have a clear picture in his own mind of exactly what the dog is doing. In this case, the dog was not having convulsions as the owner had believed, but was actually having episodes of syncope.

Case History #2

A fifteen-month-old, forty-three pound male dog of mixed breeding was admitted with a history of having convulsions. He had his first convulsion three months previously, and had had five convulsions since that time. The convulsions were occurring with increasing severity, and the interseizural duration was approximately one week to ten days.

The dog exhibited a brief period of anxiety before each convulsion that lasted about ten seconds. He would then show opisthotonus and tonic spasms of the front forelimbs. This would cause him to be-

come rigid and fall to one side. (He did not show any preference for either side.) Tetany would continue for about ten to fifteen seconds and then the legs, especially the front ones, would begin to kick together. This would last another fifteen to twenty seconds, and would be followed by running movements which lasted two to three minutes. After all of this was over, the dog would then lay exhausted for ten to fifteen minutes before he got up and blindly staggered around, gradually improving to near normalcy in thirty minutes.

This history prompted a probe into the vaccination history of the dog. He had received one canine distemper vaccination at the age of eleven weeks at the pet store. The dog, however, had not shown any signs of illness before or since that time.

The convulsions became refractory to high levels of anticonvulsant drugs within one year, and the dog was subsequently euthanized. Lesions consistent with post-distemper demyelination were found in the central nervous system upon necropsy.

Discussion

Epilepsy due to post-distemper demyelination usually occurs in dogs less than 1½ years of age that have had inadequate or no vaccination for canine distemper. The dog may or may not have had a mild "cold" usually 1 month or 6 weeks prior to the first convulsion. The duration of the convulsion is usually measured in minutes rather than seconds and the interseizural period is initially less than one month.

Anticonvulsant medication usually has to be increased frequently to control fits and all too often the condition terminates in status epilepticus.

Case History #3

A sixteen-year-old spayed female Labrador-English Pointer cross was admitted with a history of convulsions.

The episodes began one month previously, but were not really convulsions. Instead, they were spells of weakness after the dog had been outside in the morning.

These weak spells progressed until one week prior to admission. At this time, she started having actual convulsions. The convulsions occurred every morning after the dog woke up and moved around a little bit. The dog was lethargic for two to three hours after these seizures, and then felt reasonably good in the afternoon.

The seizures were characterized by shaking, severe twitching of the head, and falling over backwards. Tonic or tonic-clonic spasms would then continue for five or six minutes.

Because of the dog's age and the daily early morning seizures, hypoglycemia was considered. Laboratory tests suggested an islet cell tumor which was confirmed on necropsy.

Discussion

A number of diseases increase in incidence with the age of the animal. Heart diseases, abscesses, feline infectious peritonitis, toxoplasmosis, cryptococosis, lymphosarcoma, primary reticulosis, and neoplasms are commonly underlying causes of epilepsy in older animals. If the first convulsion is beyond five years much effort is expended in excluding these diseases from the differential diagnosis.

History is very important to give one a feeling for the progression of the disease.

Case History #4

A three-and-a-half-year-old male miniature poodle was presented with a history of having had four convulsions. He enjoyed good health otherwise, and had a good vaccination history.

The dog's first convulsion occurred at the age of two years. The second occurred six months later. And the last two occurred about one month apart. Both the owner and his wife worked, and the dog was home all day. The convulsions did not have any predilection for a particular time of day. Thus, the dog could have had a number of convulsions that the owners would not have known about.

The first convulsion lasted only two to three seconds, and the owners were not even sure what it was. Only one convul-

sion was observed all the way through, the most recent one. The dog exhibited some apprehension with an anxious look and whining for about four to five minutes. Then the dog went into a tonic spasm with opisthotonus developing, fell on the left side and became more rigid. The seizure progressed to the clonic state with whole body jerking. This reduced in severity and duration until the animal relaxed. The ictus lasted only about ten seconds but seemed like an hour to the owner. After a thirty second rest the dog began moving about in a stupor, staggering and running into things. This lasted for about ten minutes.

Subsequent work up rendered a diagnosis of hereditary epilepsy.

Discussion

The first seizure in hereditary epilepsy usually appears between 2 and 4 years in the poodle, beagle, brittany, and Irish setter. The Saint Bernard and German shepherd may have the first seizure as early as 1½ years of age. Initial seizures are light, and of short duration with a preictal, ictal, and post ictal component. The seizure is symmetrical with no lateralizing signs. There are no interseizural signs. The interseizural duration initially may vary from 3 to 6 months but reduces to one month or less after a few seizures.

Case History #5

A three-and-one-half year old, spayed, standard-bred poodle was admitted to the Stange Memorial Veterinary Clinic with no history of previous illness. The chief complaint was a transient mental behavioral change of two to three seconds duration. The animal showed no abnormal signs until the next episode.

These episodes were manifested as biting the owner. The dog had never bitten anyone else. The bite was of a severe, traumatizing nature. A laceration requiring five sutures in the owner's hand prompted them to seek help. The episodes began two years previously and were infrequent in occurrence. They were becoming more and more frequent. Dur-

ing a ten day camping trip, just prior to admission, the dog bit the owner once a day for seven of those ten days.

After further investigation, a diagnosis of psychomotor or behavioral epilepsy was rendered.

Discussion

This case was included because it meets the criteria of the definition of epilepsy. The neuronal discharge was occurring only in a localized part of the brain, the hypothalamus. It did not become generalized and include the motor cortex, so no pattern of muscle involvement or loss of consciousness was seen.

General Discussion

The previously mentioned cases are by no means presented to exhaust the various causes of epilepsy but intended only to act as guide lines for the types of questions that should be asked.

Consideration must be given to the age, breed, vaccination record and life style of the animal. The presence and duration of the preictal, ictal, post ictal and interictal stages should be defined.

A search must be made for presence of any interseizural neurological signs. Lat-

eralizing signs during the early stages of the fit or between fits are very important.

If an old trauma is to be considered as an etiology, the presence of a concussion at that time may make this information relevant.

Once the veterinarian has recorded an accurate and complete history, he is ready to continue with the examination, but without it, he may have already lost the battle. Of all the tools he has at his disposal, a good history is one of the most important.

Case References

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Salmonellosis: A Case Report

by
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Salmonella sp. is known to infect many different species of animals. This paper will describe a case of Salmonellosis in a conure. The term conure refers to birds in several neotropical genera of the Psittacine family found in South and Central America.⁵

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The bird in this case was from a group imported from Mexico to be used for research at the National Animal Disease Center, Ames, Iowa.⁴

One bird of the group died of a peracute septicemic disease, and tissue samples yielded *Salmonella* serotype 1, 4, 12: i monophasic.²

On necropsy, the liver showed multi-