Seizures

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General History
- Signalment
- Presenting signs
- Immunization history
- Medical & surgical history
- Environment
- Preventives (eg, heartworm, fleas, deworming)
- Illness in household
- Indoor/outdoor
- Toxin exposure
- Travel history
- Body systems (eg, vomiting/diarrhea, urination/defecation, coughing)
- Nutritional status

History Specific to Seizures
- Seizure frequency/description
- Birth complications
- Previous encephalitis
- Previous head trauma
- Age of seizure onset
- Interictal signs (if any)
- Anticonvulsant drugs
- Response to therapy
- Localizing neurologic signs
- Seizures reported in related animals

Physical & Neurologic Examination

Minimum Database
- Complete blood count
- Thoracic radiographs
- Serum biochemical profile (fasting)
- Abdominal ultrasound & radiographs
- Urinalysis

Based on above findings, include:
- Fecal parasite or ova examination
- Bile acid determination
- Repeated fasting blood glucose levels
- T4 (thyroxine) testing
- Serum lead level determination

Did history, physical and/or neurologic examination, or minimum database reveal evidence of disease in a specific body system other than the nervous system?

Epilepsy Definitions

Symptomatic epilepsy is diagnosed when a known or identified disorder of the central nervous system is determined to cause seizures.

Cryptogenic epilepsy is diagnosed when seizures are suspected to be symptomatic, but an underlying cause cannot be determined.

Idiopathic epilepsy is diagnosed when an underlying possible cause for seizures (other than hereditary factors) cannot be determined.

See Aids & Resources, back page, for references & suggested reading.
Extracranial cause of seizures most likely

Diagnostic Testing Specific to Body System

Examples include:
- Abdomen: Biopsy affected organ
- Cardiopulmonary: Electro- or echocardiography
- Musculoskeletal: Infectious disease titers; arthrocentesis

Did diagnostics reveal evidence of a specific disease that could be the most likely cause of the seizures?

No

Yes

Intracranial cause of seizures most likely

Diagnostic Testing Specific to Nervous System

Examples include:
- CSF analysis
- Skull radiographs
- Electroencephalography
- MRI
- CT

Did diagnostics reveal evidence of a specific disease that could be the most likely cause of the seizures?

No

Yes

Intracranial Progressive cause of seizures most likely

Additional diagnostics as indicated (e.g., CSF culture, serum/CSF titers, brain biopsy)

No

Yes

Intracranial Nonprogressive cause of seizures most likely

Symptomatic Epilepsy

Institute specific therapy for cause of seizures +/- anticonvulsant therapy (e.g., encephalitis, neoplasia, insulinoma, specific toxin, hepatic encephalopathy)

No

Yes

Idiopathic or Cryptogenic Epilepsy

Institute anticonvulsant therapy

No

Yes

CSF = cerebrospinal fluid; CT = computed tomography; MRI = magnetic resonance imaging

*This algorithm can be downloaded and printed for use in your clinic at cliniciansbrief.com.*