

Seizures: Treatment

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Several drugs are available for controlling seizures. The goal of therapy is to decrease the frequency, duration, and severity of seizures. Despite appropriate treatment, most animals continue to have seizures. The following description of medications pertains to animals with idiopathic epilepsy, but these medications can also be used to control seizures from other underlying causes.

PHENOBARBITAL

Description

Phenobarbital is an effective antiepileptic drug and is often the first drug chosen to treat animals with epilepsy. Adequate seizure control may take up to 2 weeks, because it takes some time to build up the concentration of phenobarbital in the blood. For severe seizures, a high dose may be given initially and may result in excessive side effects, such as sedation. Phenobarbital comes in injectable, tablet, and liquid formulations, but the liquid form may not be palatable to cats and some dogs. Phenobarbital is eliminated from the body by the liver, so it is avoided in animals with liver disease.

Side Effects

The most common side effects are increased thirst, urination, and appetite. Some animals may become sedated and have an uncoordinated gait, but this effect typically wears off after several weeks. Rarely, animals may become hyperactive and restless.

More serious side effects include liver damage, blood disorders, and allergic skin reactions. Liver damage is most likely in dogs that receive high doses or take the medication for a long time. Blood disorders caused by phenobarbital include decreased levels of red blood cells, white blood cells, and platelets, which can result in lethargy, decreased appetite, increased susceptibility to infections, and spontaneous bleeding. In rare cases, phenobarbital can cause skin ulcerations.

Animals receiving phenobarbital should be examined at least every 6 months, with evaluation of routine laboratory tests to monitor for side effects. Specialized tests may be recommended to evaluate liver function in animals with suspected liver damage. For animals experiencing severe side effects, phenobarbital treatment may be slowly tapered and discontinued under the guidance of a veterinarian. Stopping phenobarbital abruptly can result in seizures and should not be done without consulting your veterinarian.

Monitoring

Repeated measurement of phenobarbital blood levels is used initially to adjust dosages, then every 6 months to make sure blood levels do not become too high. Excessive blood concentrations are often associated with side effects. Although there is a

desired range for phenobarbital levels in the blood, some animals' seizures can be controlled even with low blood concentrations.

POTASSIUM BROMIDE

Description

Potassium bromide is another effective antiepileptic drug. It can be used alone or in combination with phenobarbital to control seizures. Combinations of potassium bromide and phenobarbital may control seizures that are not controlled by either drug alone. Potassium bromide is available through compounding pharmacies in capsule or liquid form.

Side Effects

The most common side effects are increased thirst, urination, and appetite. Animals may also become sedated and have an uncoordinated gait. Sedation typically wears off after several weeks. Vomiting may occur but can be reduced by administering the drug with food. Pancreatitis has been associated with potassium bromide, so animals that develop severe vomiting, lethargy, and lack of appetite should be evaluated by your veterinarian. Potassium bromide is not recommended in cats because it can cause severe respiratory problems.

Potassium bromide takes several (3-5) months to reach effective blood concentrations but may control seizures even before reaching these levels. With severe seizures, a high initial dose may be administered in an effort to achieve immediate therapeutic drug concentrations, but these loading doses are associated with severe side effects such as profound sedation. Dogs receiving a loading dose may require hospitalization.

Monitoring

Repeated measurement of potassium bromide blood levels is used initially to adjust dosages, then usually every 3-4 months for awhile. Eventually, blood levels may be checked only every 6 months to make sure they do not become too high. Excessive blood levels are more commonly associated with side effects. In some animals, seizures can be controlled despite a low concentration in the blood.

Blood levels are affected by the salt content of the diet. Animals should be fed a consistent diet, and any changes in diet should be made in consultation with your veterinarian. Specialized diets used in the management of other diseases can lead to excessive blood concentrations and side effects, so discuss these diets with your veterinarian.

Potassium bromide is eliminated from the body by the kidneys, so the drug is usually avoided or is given only in low doses to animals with kidney disease. Animals with liver disease may be treated safely with potassium bromide.