NO BRAND NAME (see below)

AVAILABLE AS A
POWDER MIXED IN WATER
AT A STRENGTH OF
250 mg/cc

BACKGROUND

Potassium bromide is not a licensed medication in the United States and special approval from the FDA must be given if it is to be used. In older times, bromides were licensed and used routinely for treating seizure disorders in humans; however, when phenobarbital was introduced, the human market for bromides was completely eclipsed. It soon became unprofitable to continue the FDA registration for bromides and the manufacture of bromides became relegated to chemical companies only. Because of the veterinary demand, an approved product is now available though many veterinarians still employ compounding pharmacies for custom-made prescriptions.

Potassium bromide is a highly reliable anticonvulsant medication in dogs. When compared to phenobarbital, potassium bromide seems to be similarly effective and has fewer undesirable side effects. Potassium bromide may be used alone (as “monotherapy”) or can be combined with other anti-medications. Potassium bromide works by competing with chloride ions for access to brain tissues. As bromide levels in the brain rise and chloride levels drop, electrical activity in the central nervous system is inhibited, making the initiation of a seizure difficult.

HOW THIS MEDICATION IS USED

This medication was initially reserved for dogs who either could not tolerate phenobarbital for seizures control due to unacceptable side effects or who needed additional seizure control medication beyond what their phenobarbital can provide. In fact, seizure control with potassium bromide is so effective that now many practitioners reach for it as a first choice therapy without even using phenobarbital.

Stable blood levels of potassium bromide require 3-4 months to achieve. One would think that additional seizure control medicines would be needed during this initial period and for some patients they are but surprisingly for many patients, potassium bromide can simply be started. For patients needing more rapid seizure control, additional medicines can be used concurrently and later withdrawn after the potassium bromide steady state is achieved or they may used as a permanent combination. Alternatively, a high loading dose of potassium bromide can be given over the first couple of days of treatment to get to the steady state more quickly. Patients are often very sedated if a loading protocol is used so often this is done in the hospital and the patient released when the sedation has resolved.

According to the ACVIM Consensus Statement on Seizure Management in Dogs, the first monitoring blood level should be drawn 6-12 weeks after beginning potassium bromide and annually thereafter unless there are breakthrough seizures or suspicions of toxicity.

Potassium bromide is effective in cats but can cause a life-threatening inflammatory lung disease so it is regarded as a last choice in this species.
**SIDE EFFECTS**

Some nausea is associated with the administration of potassium bromide. This is generally controlled by giving the medication with food.

Since potassium bromide is a salt, excess thirst and urination can be observed with this medication.

Drowsiness or grogginess, which can be marked, is not abnormal during a loading period when potassium bromide therapy is started. It is important not to give more potassium bromide to a groggy pet even if another dose is due.

In human beings, a toxicity syndrome called “bromism” results when blood bromide levels become too high. Symptoms reported include: drowsiness, weakness, muscle tremors and soreness, appetite loss, and constipation as well as skin rashes. For this reason bromide levels are monitored periodically. A similar syndrome can occur in dogs if bromide levels become too high.

Dogs with a history of pancreatitis may experience an exacerbation if potassium bromide is used to treat a seizure disorder.

**INTERACTIONS WITH OTHER DRUGS**

The use of potassium bromide as a sole seizure control agent is currently under investigation. For now, our recommendation is to continue the use of phenobarbital concurrently with potassium bromide. Typically the use of potassium bromide allows for a reduction of phenobarbital use by 30-50% which is usually enough to alleviate negative phenobarbital side effects.

**CONCERNS AND CAUTIONS**

The administration of potassium bromide interferes with laboratory measurement of chloride, thus any tests for chloride will be falsely elevated.

Potassium bromide should be given with food.

Abruptly discontinuing potassium bromide can precipitate severe seizures. If it becomes desirable to discontinue therapy, your veterinarian can instruct you regarding weaning slowly off the drug.

Patients with kidney disease will require reductions in potassium bromide dosing as this drug is removed via the kidneys. Consequently, because potassium bromide is not metabolized by the liver, it is a good choice for seizure control for dogs with liver disease.

Feeding a salt-restricted diet will alter the chloride available to combine with bromide in the body and can predispose to bromide toxicity. Consult with your veterinarian about diet changes of this nature in pets already taking potassium bromide.

Last revised: 12/22/2016