

Eclampsia

BASIC INFORMATION

Description

Eclampsia is sudden onset of weakness, tremors, collapse, or seizures that is caused by low calcium levels in a nursing (lactating) bitch. The condition is also known as *puerperal tetany* or *postpartum hypocalcemia*.

It is most often seen in small-breed dogs that are nursing large litters. It occurs only rarely in the cat.

Causes

Eclampsia develops when calcium stores in the mother's body are depleted due to calcium loss in the milk and calcium intake is inadequate. Heavy lactation (milk production and nursing) usually occurs for 2-3 weeks after delivery, and calcium loss can be quite high during this time.

Factors that promote the development of eclampsia include low calcium levels during pregnancy and poor nutrition after whelping. Supplementation of calcium during pregnancy may also precipitate (cause!) this condition by suppressing the dog's normal regulation of calcium levels in times of greater need.

Clinical Signs

The onset of signs is very sudden (acute). Restlessness and panting may be seen early in the disease. Other typical signs include muscle twitching and spasms, pawing at the face, disorientation, weakness and wobbliness, and seizures. The dog may collapse and enter a coma that is followed by death. Muscles spasms and continuous seizures may result in extremely high body temperatures.

Diagnostic Tests

The diagnosis of eclampsia is suspected based on a history or physical evidence that the dog is lactating and the presence of typical clinical signs. Further evidence may include the timing of the onset of signs, the presence of a large litter, and the size of the dog. A blood test may be recommended to measure calcium levels.

Low calcium levels or a positive response to the administration of calcium confirms the diagnosis.



TREATMENT AND FOLLOW-UP

Treatment Options

Restoring calcium levels to normal is the goal of therapy. Intravenous calcium is given to those bitches that have severe signs (seizures, continuous muscle spasms, coma). Severely affected dogs often require hospitalization with supportive fluid therapy and measures to lower their body temperature.

On discharge from the hospital, the pups are removed from the bitch for 24 hours or longer in some cases. The dog may be sent home on oral calcium, vitamin D, and an improved diet. For those bitches that are only mildly affected, oral calcium supplements and vitamin D may be tried. The puppies may continue to nurse mildly affected dogs, as long as signs do not worsen.

Follow-up Care

If signs were severe or if the signs return or worsen despite therapy, then it is necessary to hand nurse the puppies after removing them from the bitch. Should this bitch be bred again, calcium supplementation started at the beginning of lactation may be helpful.

Prognosis

If treatment is started promptly, most bitches usually respond well to calcium treatment, and eclampsia is successfully controlled. Dogs that become comatose or have extremely high body temperatures for a long period have a worse prognosis.