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ECLAMPSIA (Milk Fever)

What is eclampsia?

Eclampsia (milk fever) is not the same syndrome in dogs and cats as is seen in humans. In dogs and cats this problem is due to a low concentration of calcium in the bloodstream. This low amount of calcium has the effect of causing muscle spasms, difficulty breathing and, eventually, convulsions resulting in an elevated temperature (hyperthermia). In very severe cases (especially if left untreated) it can lead to a swelling of the brain and possibly death..

Why does it occur?

Eclampsia is most common in smaller breeds of dogs. It usually occurs within the first four weeks of having a healthy, and often large, litter of puppies. However, it can also occur just prior to the birth of the pups and up to six to eight weeks after the birth of the pups. Milk production in the mother is very energy intensive and she requires a good quality, well balanced, healthy diet both leading up to, and during, lactation. During lactation a large amount of calcium is transferred to the puppies via the milk. Normally this is not a problem as the mother can access calcium both from her diet and from calcium stored in the body. However in some cases she cannot compensate for this loss of calcium via her regular diet and calcium stores. Reasons include a very large litter size, healthy puppies that are feeding well, poor nutrition during pregnancy and lactation and also calcium supplementation during pregnancy (the latter, in particular, causes a lack of ability to quickly access the additional calcium stores in the body when it is needed).

What are the signs of eclampsia?

The clinical signs include shivering, restlessness, panting, muscle tremors, a very rapid heart rate, salivation and if extreme, seizures.



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How do we treat eclampsia?

Eclampsia needs to be treated by your veterinarian who will probably give your dog an intravenous solution of calcium very slowly over 5 to 30 minutes. Sometimes additional treatment may be required such as correcting hyperthermia or controlling seizures, but usually the correction of the low calcium will be sufficient to reverse the symptoms. Some dogs may require hospitalisation until they are stable.

What is required after treatment?

Once your pet has been stabilised it is extremely important that she no longer has such an intense loss of calcium. It is recommended that:

1. She is fed a good quality, well balanced, high energy diet – a good quality tinned or dried puppy diet is ideal.
2. The puppies should be either
 - completely removed from their mother, and then hand fed a special puppy formula (such as 'Animalac', available from vet clinics and pet stores)
 - or the puppies are hand fed, but also allowed to nurse from the mother for half an hour morning and night. Be careful as this second option will mean that she will still be in some danger of becoming low in calcium again.
3. When the puppies are 4 weeks old they should be encouraged to start eating a good quality tinned or dried puppy diet (which is usually aided by their interest in what their mother is already eating).
4. In the first few days after treatment the mother should be completely removed from her puppies, as often she will want to let them nurse. If that isn't possible then her teats and abdomen should be covered with an abdominal wrap so that the pups can not nurse. Sometimes a small T-shirt can also be used. If separation at home is not possible she may need to stay in hospital for the first 24 hours.
5. The mother should be monitored for mastitis (swelling, redness and pain of the mammary gland) and discomfort when her puppies are removed from her. A warm flannel used as a compress can help to relieve the discomfort of overfull mammary glands after the rapid weaning.



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Will this problem happen again?

This problem will most likely recur with subsequent litters of puppies. It is strongly recommended that your pet is desexed to avoid this problem in future.