

## Canine Maternal Hydrops- our Journey

### LILY'S PREGNANCY AND LITTER -

She was health checked 7 days prior to mating

PROGESTERONE testing and mated 7 days later following three days. Natural mating. (as natural as a scottie can be)

Weight 10kgs

Day 50 she had a health check!! And prog test as previously had dropped her level and needs prog tablets prior to whelping.

4 days prior to whelping date, I did notice that she had a very hard, huge belly,( flag 1 ,I missed) just thought she had a load of puppies

Three days prior to due date eating and drinking OK. Tummy still big. Temp 37.4

Two day before due date:, Struggling to get up and down a step, a little listless, bit picky with food, but still eating (Flag 2)

One day beforeDue date: temp had gone up again. Flag 3) Had been up walking in night, went out for wee and didn't want to come back in. Sat in a bed on the verandah. Temp 38.8c. very listless, No contractions. I'm worried about her, rang vet.and took her in. Weight still 12kgs.

Examined by vet, cervix opened and vet could feel a puppy. Still no contractions

Ultrasound of puppies heart beats, some good at over 220 some not good at 100. Decided to go to emergency Ceasar.

Lily had extremely large uterus filled with fluid, and her uterues had started to rupture

7 puppies- 3 didn't make it, 4 born alive 3 dogs 1 bitch.

Diagnosed by vet with canine maternal hydrops, with partial, uterine rupture in two places. Her condition was critical, and the vet team cautiously said she might not survive. To prevent shock, lots of fluid replacement. and was spayed at time of c section, given iv antibiotics. Weight on discharge from hospital was 8kg.

She was commenced on , clavulox/ampicillin bd evening

We were very lucky that we didn't lose her. Also we could have lost her and all of thee puppies.

Puppies were given reconstituted powdered colostrum for the first 24 hours

Three of the four puppies were strong, one weak and had no suck reflex, he was tube fed solely for 5 days, until his suck reflex came in. I was surprised that he survived.

The other three puppies were trying to get milk from mum, but she had very little milk and what she had was limited to the two teats near her front legs. Two teats for four puppies didn't work out..I allowed the puppies to suckle to try to bring in more milk, but it didn't happen , so the four puppies were hand raised with some help from mum, at least she would clean them and snuggle with them, as would their big sister.

By 3 weeks Lily had no milk and puppies commenced on solids. They have all thrived and are well.

### CANINE MATERNAL HYDROPS

I had never heard of it, although I vaguely remember hydrops mentioned in my nursing training, many moons ago.

Our local vet had seen it before, in a few bulldogs. Most of the literature on CMH is American, and over there it seems that Golden Retrievers are prone to it and that is where most of the research is going.

Looking back, could I have done anything differently?

She was prog tested prior to mating.

Had ultrasound at 28 days. Our Vet usually only uses ultrasound to confirm pregnancy, doesn't usually do a puppy count. As she had dropped her progesterone too early in her previous litter, at day 50 we did a general health check, and repeat progesterone which was normal for continuing pregnancy.

In hind sight she was huge a few days before whelping, was not eating a lot, but I just gave her smaller but more feeds. Her temp dropped and then came up again. I should have had her x-rayed at day 55.

I have jotted my experience so that others might gain some insight into this condition, and I hope it doesn't rear its ugly head to anyone else.

There is a dedicated Facebook page on Hydrops which is now called 'Excessive Amniotic Fluid' if you are interested in learning more. There are some great articles by Barbara Wohlferd, which are very detailed I have added a short article by \*Julie carruthers, which I found on the internet.

- These photos are part of an article by Barbara Wohlferd., showing a fluid filled uterus with hydrops and fluid in the embryo sac.



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Uterus of a bitch with hydrops

Another c-section where the fluid is in the amniotic sack, rather than free flowing in the uterus.

Canine Maternal Hydrops

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### **The biggest problem remains... what is hydrops?**

The answer to that question is complicated. We really have no idea what causes hydrops, though many things have been suggested. Thoughts range from environmental factors to the blood type of the puppies and the mother being at odds. We simply do not know the cause and a pattern has not developed. Research continues, and a possible study would help answer some questions about preventing this complication, but for now we must concern ourselves with the signs, symptoms, and how we can limit the risk to our canines. Although my experience has been limited to Golden Retrievers, hydrops has been seen in many other breeds. It is a problem we all must address, and be ready to deal with as the symptoms arise, in order to save our affected litters.

Symptoms vary and all or none of these symptoms can be present:

- Size and weight increase that is out of proportion to the expected number of puppies (For reference: A typical Golden Retriever bitch will gain two pounds per puppy.)
- Abdomen that is hard to the touch
- Edema or swelling of the vulva, hocks, and feet
- Leaking of clear fluid
- Unclear, blurry x-ray at day 55-56
- Ultrasound showing excess fluid
- Heavy vomiting close to delivery
- Early temperature drop, not beginning labor
- Most expel large amounts of fluid during c- section which must be replaced by IV
- Decrease in condition in the last two weeks of pregnancy.

Treatment involves managing the symptoms as they present themselves. At this point, there is no treatment regimen defined by veterinarians. C-sections are necessary in most, if not all, cases. Sometimes a premature C-section must be performed to save your bitch. You have to be ready to make a decision before your girl crashes and you lose everything. Some say a low-sodium, more Adkins-type diet and 500-1000 mg. of dandelion root twice daily can help. You may want to slow weight gain (without starving) and give a diuretic to decrease the fluid. The diuretic of choice is spironolactone. Another common practice is injecting Dexamethasone to mature the lungs of the puppies faster, giving them a much great chance of survival should they be born early. Most importantly, give your bitch IV fluids with a large bore needle during the C-section and give the puppies antibiotics following the C-section.

Knowledge and education continues as we experience hydrops more and more frequently. It is important to note that this condition is most common in first pregnancies, does not always happen to the same bitch on subsequent pregnancies, and may or may not be passed on to offspring. Until we know more, it's our best bet is to learn from each other and share our information openly.

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