Martin and Carr Vets information sheet

Diabetes mellitus

What is diabetes mellitus?

Diabetes mellitus is a disease in which the animal fails to be able to control its own blood sugars, and cannot absorb sugar from its own blood.

Who is affected?

Most commonly diabetes affects middle aged or older dogs.Often it is first diagnosed in the summer months,the reason for this is not known.

It may also be more likely to occur in obese and inactive animals .

What symptoms might I notice?

Diabetic animals are always thirsty,and spend more time at the drinking bowel.

They may eat a lot and yet still loose weight.

Sometimes diabetes may be suspected if the animal becomes urinary incontinent in the house.

How is diabetes diagnosed?

Initially if there is a suspicion of diabetes the veterinary surgeon will dip stick a sample of the pet's urine.

This is a fast and accurate screening test ,and if the urine contains glucose ,this is a strong indicator the animal has diabetes.

Further blood tests are then indicated to find out how severe the diabetes is.

Can diabetes be treated?

Treatment is available for diabetes.

In dogs and cats the mainstay of treatment is a combination of dietary management and insulin injections.

The first phase of treatment is known as 'stabilisation', and this may require hospitalisation during which time the vets may perform serial blood tests for sugar called 'glucose curves'.

Once the vets have discovered the most suitable dose of insulin for the individual patient ,they will instruct the owner how to inject their own animal.

Our vets are patient and will take as long as is necessary to insure the owner is confident and happy to inject.Full support will be given through the practice and often in addition to the case vet, a veterinary nurse will be assigned for contact queries.

Treatment for diabetes is a commitment in both time and money ,but the improvement in the quality of life for the animal is usually fantastic.

My vet has suggested we should spey our diabetic bitch?

Diabetic bitches are always worse after a season.This is because the insulin has to work harder to absorb sugar into cells in the presence of progesterone.Progesterone is a hormone produced in the entire bitch after her season.

What is the treatment protocol?

Individual clinicians have their favourite ways of advising on protocols,but below I shall outline my own preferred approach.

After ruling out other conditions that may mimic diabetes I start the animal on a set dose of insulin (0.5IU/kg) and do a glucose curve off this dose to see what effect this dose gives over a day.

I generally give insulin twice daily ,and make adjustments only after four or five days in line with the results obtained from the glucose curves performed.

Diet is important as the number of calories fed MUST be constant and appropriate for the individual patient.

There are special diets available for diabetics ,but for dogs surprisingly chappie appears to be almost as good as any of the more expensive foods.

Given the weight of the animal ,the calorific requirement is calculated,and then the vets can advise how much of a particular food to give.

Exercise should be kept regular,as should feeding times as much as possible.

With twice daily injections of insulin ,ideally an animal should be fed four times daily so that the blood sugars are kept as steady as possible.

A good sign that the treatment is working is a return to normality,especially in the drinking and eating department!.

What is the prognosis?

Without treatment diabetes generally progresses quite quickly ,and the symptoms become intolerable.

With appropriate treatment and management our patients do very well ,and may expect to live up to a further five years or so,depending obviously on the age at which they are diagnosed.

Sadly common complications especially in dogs are diabetic cateracts,which can occur in both treated and untreated dogs.

We do not tend to see diabetic cateracts in cats .

Are there any complications to watch out for?

The insulin is injected to lower the blood glucose of your pet to a normal value.

Sometimes if the blood glucose drops too low a HYPO may develop.Symptoms of this are wobbliness,progressive dullness and on rare occasions seizures.

Hypos are more likely to occur some hours after the injection of insulin,and are again more likely to be a possibility in the early stages of treatment as the animal is being stabilised.

It is a good idea to keep a mars bar handy, as if a hypo is suspected ,on the advise of the surgery many will resolve if you put a little piece of mars bar into the mouth.

Urinary tract infections are common in diabetics and sometimes these may affect the dose of insulin required.

Another complication of poorly controlled diabetes is ketoacidosis ,this is a serious condition in which the blood sugars are not controlled and the animal presents in a collapsed state.

Example calculation of calorie intake for a 25kg dog

The basal energy requirement for a dog is in kcal 70 + (30 x bodyweight in kg)

Thus for a 25 kg dog = 70 + (30x25)

= 70 + 750

= 820 kcal

A 'normal sized tin of chappie contains approximated 420 kcalories

So this dog would need 820/420 tins of chappie per day ie 1.95 tins/day.

(The basal energy requirement of cats is given as 50 x bodyweight in kg)