



Ronald Jan Corbee, DVM

Yalelaan 108, 3584 CM
Utrecht, The Netherlands

R.J.Corbee@uu.nl

NUTRITIONAL MANAGEMENT OF A COMPLEX CASE

A 10 year old male intact crossbred dog was referred for a nutrition consultation. The dog had IRIS stage III kidney failure and episodes of pancreatitis and diarrhea (suspect IBD). The dog was only consuming homemade foods.

Nutritional assessment

The body weight of the dog was 11.7kg with a body condition score of 5 out of 9 and no muscle atrophy present. The current diet consisted of a commercial renal diet (Hill's prescription diet Canine k/d kibble and canned), which was not eaten in sufficient amounts by the dog, and horse meat (provided in small chunks to give a phosphate binder (Ipakitine). The snacks he got were table scraps and Trovet multipurpose treat hydrolyzed protein. On physical examination there were no abnormal findings. Blood work revealed a BUN of 14.39mmol/L (3.2-10.3), creatinine of 329 μ mol/L (<124), SDMA of 29 μ g/dL (0-14) and inorganic phosphate of 1.9mmol/L (0.9-1.7). Urinalysis revealed an increased UPC ratio (0.7, reference <0.5). Systemic blood pressure was 170mmHg. The current diet was not sufficient, as it was not consumed in quantities to maintain body weight.

Medical management

The dog was treated for hypertension with amlodipine and an ACE inhibitor. For the pancreatitis a low fat diet was prescribed (Royal Canin gastrointestinal low fat, canned), which resulted in diarrhea. Therefore it was recommended to try a homemade diet with a new protein source (horse meat) and to add a phosphate binder (Ipakitine), together with a renal diet with limited protein sources (Hill's prescription diet canine k/d). For the nausea (pancreatitis and renal failure) maropitant (Cerenia) was prescribed. Because of the complexity of the case, the veterinarian decided to refer the dog for a nutrition consultation.

Nutritional management

The dog loved horse meat, rice, green beans and carrots according to the owner. The dog did not like the commercial renal diet. The dog also likes chicken breast and potatoes. A homemade diet recipe was prescribed with white rice, horse meat, chicken

breast, green beans, carrots, corn oil, fish oil and a vitamin-mineral supplement low in phosphate (Balancelt canine-K). The nutrient composition was restricted protein (15.6% protein calories), low fat (13.6% fat calories), low phosphorus (0.6g/Mcal) and the recipe delivered 679kcal ME per day (which is 1.5xRER). The potatoes were not used as they contain a high level of potassium, which was not needed for this dog. The corn oil was replaced by sunflower oil, as this was easier to obtain for the owner. The fish oil was switched to salmon oil for the same reason.

Follow up

The dog loved the diet according to the owner. The dog remained normal body weight, but was more hungry, therefore we decided to increase the amount of vegetables in the diet and reduce the rice a little bit. The dog had no diarrhea anymore, and no episodes of pancreatitis since. Urea dropped to 9.39mmol/L and creatinine remained stable (between 313 and 365 μ mol/L). Systemic blood pressure was 160 and UPC reduced to 0.4.