

# Case report clinical nutrition

## Pixibob with strange habits

*Does short bowel syndrome occur in cats?*

### *Signalment*

Luna, FN, Pixibob, 01-06-2003, 3.5kg

### *History*

Vomiting and diarrhea since 2 weeks, with concurrent weight loss. The cat has been on a commercial diet for dermatologic disease, because another cat in the household has skin problems.

Since yesterday Luna stopped eating and started vomiting thin brown, faecal material.

### *Our clinical findings:*

The cat was in a very bad body condition (BCS 2/9)

RR 40/min costo-abdominal

Weak, regular pulse 114/min

T 37.8

Pink mucous membranes, normal CRT

### *Problem list:*

- anorexia and weight loss
- small intestinal diarrhea
- vomiting

Feecal examination (on a 3 days sample) on parasites was negative.

There was an intestinal mass palpable in the epigastrium.

On the X-ray gas filled intestines were visible.

### Bloodwork:

- albumin 26 (26-37)
- total protein 58 (55-72)
- Potassium 2.9 (3.6-5.6)
- Sodium 142 (141-150)
- Liver and kidney values between reference rates

### Differential diagnosis:

- Foreign body
- Neoplastic mass
- Local inflammation
- Motility disorders (ileus)

### *Treatment:*

Luna was hospitalized at the ICU for potassium correction. She received parenteral fluids for 1 day (stabilization).

After normalizing the potassium an explorative laparotomy was performed.

We found an intestinal mass in the duodenum, just below the pancreatic loop. The intestine was changed in a flat, pale, smooth mass. The abnormal looking intestine (20 cm) was excised and sent to pathology for histology. Other intestinal biopsies were performed and the abdomen was closed in a regular manner.

Medication : Buprenorphine (temgesic) (painmanagement), metronidazole (against Giardia, immunomodulation) and amoxicilline-clavulanic acid (synulox) (against secondary bacterial infections).

### *Interpretation:*

Histology showed a pyogranulomatous inflammation with fibrosis due to a foreign body. The other biopsies didn't show abnormalities.

Luna received parenteral nutrition the first day after surgery (amynin and intralipid) at 0.6xRER.

The following days we started feeding several meals with small amounts of a recovery diet, which was high in protein and fat with a high digestibility at 1.0xRER.

She was eating well and did not vomit. She regained some bodyweight (0.2kg in 4 days) and her condition improved (BCS 3/9).

She was sent home and the owner gradually changed her diet back to the normal amounts of the food previously given.

### *Reassessment:*

After 2 weeks Luna came back at our clinic with the complaint of diarrhea.

The faecal examination revealed no parasites. There was some undigested starch and fat present.

She maintained bodyweight since she left the hospital, but didn't gain weight.

Differential diagnosis:

Short bowel syndrome (not reported in cats), IBD, EPI, Motility disorder, Food allergy

### *Nutrition:*

Key nutritional factors on dry matter basis:

- high digestibility >87% protein >90% carbohydrates and fat
- high energy >18.8 kJ/g
- fat 15-22%
- fiber 0.5-15%
- a hydrolysed protein diet will be effective in aiding protein digestibility

The feeding plan is:

- feeding a low residue, high energy diet, with moderate fat levels
- feeding multiple small meals
- feeding dry foods to delay gastric emptying time

*Reassessment:*

Luna was fed a hydrolysed protein diet with moderate fat levels. She regained weight and had a normal body condition score 3 weeks after the dietary change. The diarrhea did not occur anymore. The other cats in the household also changed their diet to the hydrolysed protein diet. The cat with the previous skin problems also tolerated this diet well.

Prognosis is good.

*Discussion:*

Although initially the problems were solved and biopsies were normal the diarrhea recurred. Short bowel syndrome has not yet been reported in cats but could it be the case in Luna?

*Literature:*

- Small animal Clinical Nutrition, 4<sup>th</sup> edition, 2000, 767-770
- J Pediatr Gastroent Nutr 2004 Jan, 38(1):107 Hydrolyzed versus nonhydrolyzed protein diet in Small Bowel syndrome in children
- Semin Vet Med Surg 1989 Aug (4)(3)226-31 Small Bowel syndrome in dogs and cats