Beyond the Obvious: Diagnosing Severe Gastrointestinal Ileus in a Cat Suspected of FPV

Introduction



When a cat presents with severe symptoms such as weakness, loss of appetite, vomiting, and bloody diarrhea, the mind naturally races toward the most serious diagnoses.

This was the situation with Banana, an adult outdoor cat, who arrived at Dr. Sarit Gayer's veterinary clinic after recently being diagnosed at another clinic with Feline Panleukopenia Virus (FPV).

Given Banana's lifestyle, highly anxious, preferring outdoor spaces, and with no history of routine vaccinations, the concern for infectious disease was understandable. However, certain inconsistencies between Banana's clinical presentation and the classic profile of FPV led his owners to seek a second opinion.

This case study details Banana's journey: from careful diagnostic reconsideration, through advanced imaging and supportive treatment, to his eventual successful recovery.

Background

Banana is a mature, highly anxious cat who lives primarily outdoors and actively avoids confined spaces.

Because of his temperament, maintaining routine veterinary care , including vaccinations and deworming , proved difficult, exposing him to greater risks of infectious diseases.

Managing a cat like Banana required a tailored, stress-minimizing approach that still allowed for thorough diagnostics and proactive intervention without exacerbating his fragile condition.

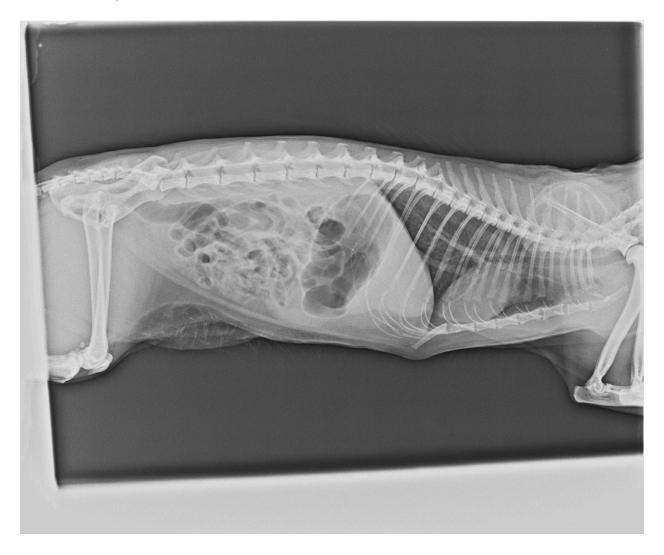
Initial Presentation and Hospitalization – Day 1

Diagnostic Reevaluation

In light of Banana's prior FPV diagnosis, the team at Dr. Gayer's clinic prioritized verifying this finding.

A PCR test for FPV was immediately collected, alongside comprehensive bloodwork and lateral abdominal radiographs.

Although a viral cause could not yet be ruled out at presentation, the team remained cautious: Banana's age, clinical signs, and blood results called for a deeper look before assuming an irreversible diagnosis.



Radiographic Findings

- Gastrointestinal tract: Marked gas distension noted in the small intestinal loops.
- **Stomach:** Some gas accumulation without significant gastric dilation.
- Liver: Normal in size, margins, and location within the rib cage.

- Skeletal system: No fractures, luxations, or structural abnormalities observed.
- Thorax:
 - Heart and lungs appeared structurally normal.
 - Mild peri-cardiac haziness noted, considered normal given positioning during radiography.

These radiographic findings suggested significant intestinal gas buildup but did not reveal any evidence of mechanical obstruction, foreign bodies, or masses.

Hematology Results

IDEXX Services: ProCyte Dx Haematology Analyser . Haematology 15/4/2025 11:25 am TEST RESULT REFERENCE VALUE RBC 7.21 6.54 - 12.20 M/µL Haematocrit 29.0 30.3 - 52.3 % ιE Haemoglobin 9.9 9.8 - 16.2 g/dL MCV 40.2 35.9 - 53.1 fL MCH 13.7 11.8 - 17.3 pg MCHC 28.1 - 35.8 g/dL 34.1 Т RDW 24.2 15.0 - 27.0 % % Reticulocytes 0.2 % Reticulocytes 15.1 3.0 - 50.0 K/µL Reticulocyte 15.1 13.2 - 20.8 pg Т Haemoglobin WBC 10.12 2.87 - 17.02 K/µL 5.2 % % Neutrophils % Lymphocytes 76.9 % % Monocytes 14.7 % % Eosinophils 2.5 % % Basophils 0.7 % Neutrophils 0.53 2.30 - 10.29 K/µL L Lymphocytes 7.78 0.92 - 6.88 K/µL нE Т 0.05 - 0.67 K/µL Monocytes 1.49 Η[0.17 - 1.57 K/µL Eosinophils 0.25 Г Basophils 0.07 0.01 - 0.26 K/µL Г Platelets 151 - 600 K/µL L Т 59 MPV 21.8 11.4 - 21.6 fL Η Т Plateletcrit 0.17 - 0.86 % 0.13 L 🗌

- Red Blood Cell (RBC) Count: Normal.
- **Hematocrit (HCT):** Mildly decreased (29.0%), indicative of mild anemia.
- Hemoglobin (HGB): Low-normal (9.9 g/dL).
- **Reticulocyte Count:** Very low (0.2%; 15.1K/µL), consistent with **non-regenerative anemia** meaning the bone marrow was not adequately responding to the anemia.

Clinical interpretation:

In a healthy cat, this reticulocyte level would be acceptable. In the presence of anemia, however, a robust regenerative response ($50K-100K/\mu L$) would be expected.

Clinical Status	Hematocrit	Reticulocyte Count	Interpretation	
Healthy Cat	Normal	~15K/µL	Normal	
Anemic Cat	Low (e.g., 29%)	~15K/µL	Inadequate bone marrow response (Non-regenerative anemia)	

- White Blood Cell (WBC) Count: Within normal limits overall.
 - **Lymphocytes:** Elevated (7.78K/µL).
 - **Neutrophils:** Low (0.53K/µL).
 - **Monocytes:** Elevated (1.49K/µL).
- **Platelets:** Significantly decreased (59K/µL) indicating **severe thrombocytopenia** and an increased risk of spontaneous bleeding.

Chemistry			
15/4/2025	11:32 am		
TEST	RESULT	REFERENCE VALUE	
Glucose	191	74 - 159 mg/dL	H
Creatinine	1.0	0.8 - 2.4 mg/dL	
Urea	21	16 - 36 mg/dL	
BUN: Creatinine Ratio	22		
Phosphorus	4.7	3.1 - 7.5 mg/dL	
Calcium	7.7	7.8 - 11.3 mg/dL	L
Total Protein	8.0	5.7 - 8.9 g/dL	
Albumin	2.6	2.2 - 4.0 g/dL	
Globulin	5.5	2.8 - 5.1 g/dL	H
Albumin: Globulin Ratio	0.5		
ALT	54	12 - 130 U/L	
ALP	<10	14 - 111 U/L	L
GGT	4	0 - 4 U/L	
Bilirubin - Total	4.0	0.0 - 0.9 mg/dL	H
Cholesterol	101	65 - 225 mg/dL	
Amylase	631	500 - 1,500 U/L	
Lipase	453	100 - 1,400 U/L	
Chemistry	1 5/04/2025 11:59		
Catalyst Pancreatic	3.4	0.0 - 4.4 U/L	

Biochemistry Results

• Glucose: Elevated (191 mg/dL), most likely due to stress (common in anxious cats).

- Creatinine and BUN: Within normal limits no evidence of renal dysfunction.
- **Calcium:** Slightly low (7.7 mg/dL).
- **Globulin:** Elevated, suggesting chronic inflammation or infection.
- Albumin/Globulin Ratio: Decreased (0.5) consistent with systemic inflammation or hepatic involvement.
- **Bilirubin:** Severely elevated (4.0 mg/dL; normal 0.0–0.9), raising concerns about either hemolysis or hepatobiliary disease.
- ALP (Alkaline Phosphatase): Markedly decreased (<10 U/L) unlikely to represent bile duct obstruction.
- Amylase and Lipase: Within normal limits.
- Pancreatic Lipase (Spec fPL): Normal (3.4 U/L), effectively ruling out pancreatitis.

Clinical Summary – Day 1

Banana's findings pointed toward:

- Mild non-regenerative anemia.
- Severe thrombocytopenia.
- Systemic inflammatory response (monocytosis).
- Severe hyperbilirubinemia.
- Stress-induced hyperglycemia.

While his initial diagnosis suggested FPV, the full clinical picture increasingly indicated a significant gastrointestinal and inflammatory process, not a primary viral infection.

Supportive Treatment Initiated – Day 1

Stabilization efforts began immediately, aimed at maintaining Banana's hydration, controlling nausea, preventing secondary infections, and supporting his gastrointestinal tract:

Treatment	Purpose		
Subcutaneous Fluids	Hydration and perfusion support, toxin elimination.		
Cerenia (Maropitant)	Control of nausea and vomiting; appetite support.		
Baytril (Enrofloxacin)	Broad-spectrum antibacterial therapy.		
Synulox (Amoxicillin + Clavulanic Acid)	Reinforced bacterial protection, especially for gastrointestinal pathogens.		
Mirtazapine	Appetite stimulation.		
Vitamin B12	Gastrointestinal and hematological support.		

Diagnostic Differentials Considered

Given the complexity of Banana's findings, the clinical team considered:

- Toxic liver injury (due to hyperbilirubinemia, anorexia).
- **Partial intestinal obstruction** (volvulus or intussusception indicated by severe intestinal gas and ileus).
- Lymphoma (suggested by non-regenerative anemia and elevated globulin levels).

Further Evaluation – Day 2

Abdominal Ultrasound (Performed by Dr. Arnon Markovich)

- Gastrointestinal Tract: Severe gas accumulation throughout the stomach and small intestine. Wall structure and layering remained intact. No peristalsis was observed, consistent with functional ileus.
- Abdominal Organs (liver, spleen, kidneys, bladder, pancreas): Normal appearance for Banana's age.
- No free abdominal fluid detected.
- No masses or suspicious abnormalities identified.

- **Reactive lymph node** noted between the liver and stomach compatible with localized inflammation.
- Cardiac Evaluation: Heart size and function were normal.

Imaging Interpretation

The ultrasound confirmed **severe functional ileus** and gastrointestinal gas distension, without mechanical obstruction or neoplasia.

Continued Supportive Care – Day 2

Treatment	Purpose		
Continued Subcutaneous Fluids	Maintain hydration and systemic perfusion.		
Continued Cerenia	Ongoing nausea control.		
Baytril and Synulox	Continued broad-spectrum antibiotic therapy.		
Primperan (Metoclopramide)	Gastrointestinal motility promotion.		
Famotidine	Gastric acid suppression and mucosal protection.		

Supportive therapy was maintained and adapted:

Final Diagnosis

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LAB REPORT

דוח מעבדה

Client Name:	גייר - דפנה אברהמי					שם הלקוח:	
Species:	Cat		מין :	Lab. No.	25 - 3688	375	מסי מדבקה :
Age:	8.0		גיל:	Regist.Date:	15/04/2025	16:24	: תאריך רישום
Name:			: שם בעיי <mark>ח</mark>	Sample Date:	15/04/2025	16:24	: תאריך לקיחה
Doctor:							: רופא מטפל
Referred:			Gayer	r Sarit			גורם שולח:
Station		Results		Units G	raphic Displa	у	Reference Range
Molecular							
Panleukopenia PCR		Negative					

Report Status: Completed Results

Print Date: 16/04/2025, 10: 50 Completed Date: 16/04/2025, 10:49 Director Veterinary Manager: Even Tzur Tzachi, DVM Distribution: Email

Fax No. 04-6341319

The definitive negative PCR result for FPV, together with clinical findings, confirmed that Banana's symptoms stemmed from severe functional gastrointestinal ileus with secondary inflammatory response, not a viral infection.

Discharge Plan

Following rapid clinical improvement:

- Banana was discharged with strict instructions for indoor confinement for at least three days.
- Continuation of supportive therapy at home was prescribed.
- A follow-up examination was scheduled to monitor gastrointestinal recovery.