



Interpretation of Feline Infectious Peritonitis Profiles

Feline infectious peritonitis (FIP) may take generalised **effusive (wet)** or **non-effusive (dry)** forms involving body cavities and associated organs. FIP may also take the form of **neurological disease** or **uveitis**, or be localised to the lungs, kidneys, intestine or lymph nodes. Diagnosis may depend on matching clinical signs with a panel of laboratory results to develop an index of suspicion for FIP. Histopathology may be useful in confirming a diagnosis of FIP at postmortem examination.

- **Feline coronavirus antibody titre**

A positive antibody titre against feline coronavirus (FCoV) in a cat older than 12-14 weeks of age, when any maternal antibodies will have waned, indicates that the cat has been infected with FCoV and seroconverted. Cats with high persistent antibody titres against FCoV have a higher risk of being persistently infected with FCoV than cats with lower antibody titres. Cats with non-effusive FIP often have FCoV antibody titres ≥ 640 , whereas FCoV antibody titres in cats with effusive FIP may be more variable. However, a positive antibody titre does not necessarily indicate that the cat has FIP. FCoV antibodies can be determined in serum, body cavity effusions and other fluids, such as cerebrospinal fluid or aqueous humour.

FCoV antibody titre ≥ 640 High FCoV antibody titre
160-320 Moderate FCoV antibody titre
 ≤ 80 Low FCoV antibody titre

- **Albumin:Globulin ratio (A:G)**

The albumin:globulin (A:G) ratio in serum, as well as body cavity effusions, is usually reduced in cats with FIP, due to elevated concentrations of globulin and sometimes decreased concentrations of albumin.

A:G ratio < 0.5 Increased index of suspicion for FIP
 ≥ 0.5 Reduced index of suspicion for FIP

- **α 1-acid glycoprotein (AGP)**

α 1-acid glycoprotein (AGP) is one of a number of acute phase proteins produced by the liver in response to a wide range of inflammatory stimuli, including infectious and non-infectious diseases. Increased concentrations of α 1-AGP are not specific for FIP but can be a useful diagnostic marker for the disease when combined with other clinical and laboratory findings. α 1-AGP concentrations in healthy cats are usually $< 500 \mu\text{g/mL}$.

α 1-AGP $< 1500 \mu\text{g/mL}$ Reduced index of suspicion for FIP
 $\geq 1500 \mu\text{g/mL}$ Increased index of suspicion for FIP

- **Haematology and cytology**

Effusive (wet) FIP: Body cavity effusions in FIP are modified transudates. The fluid is often viscous and may clot. Protein concentrations are usually $> 35 \text{ g/L}$. The effusion WBC count is usually $< 5 \times 10^9$ cells/L, comprising mainly neutrophils and macrophages.

Non-effusive (dry) FIP: Haematology often reveals a non-regenerative anaemia, lymphopaenia and mild neutrophilia, with a left shift.

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