**IN HOUSE EXAMINATION OF THE FLUID**

**Appearance**
- Straw coloured, clear, not odiferous, chylos
- <30g/litre

**Protein level**
- >35g/litre
- <30g/litre

**Albumin:globulin ratio**
- <0.8
- >0.8

**Cytology**
- Neutrophils and macrophages
- Bacteria, malignant cells or mostly lymphocytes

**FIP UNLIKELY**
- <10g/l
- 93% unlikely to be FIP
- Negative

**FIP POSSIBLE**
- The predictive value of a negative FCoV RT-PCR test on an effusion depends entirely on the sensitivity of the test being used

**INNOVATIVE ENRICHED PREFERENCE**

**Cat presents with abdominal enlargement or dyspnoea**

Clinical examination reveals an effusion: which may be abdominal, pleural, pericardial, scrotal

**Sample the effusion**

**Diagnosing effusive FIP**

**History: age breed**

- An opportunity for FCoV infection is essential
- Around 70% of cats with FIP are pedigree
- Any age, but over 50% of cats with FIP are <2 years old (see table)
- Usually a history of stress within weeks prior to presentation

<table>
<thead>
<tr>
<th>Age (yrs)</th>
<th>Pedigree cat</th>
<th>Domestic cat</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1</td>
<td>95</td>
<td>79</td>
</tr>
<tr>
<td>1</td>
<td>70</td>
<td>42</td>
</tr>
<tr>
<td>2-3</td>
<td>53</td>
<td>41</td>
</tr>
<tr>
<td>4-5</td>
<td>60</td>
<td>33</td>
</tr>
<tr>
<td>6-7</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>8-9</td>
<td>23</td>
<td>34</td>
</tr>
<tr>
<td>≥10</td>
<td>11</td>
<td>14</td>
</tr>
</tbody>
</table>

**Likelihood of effusive FIP according to age and breed**

Soma et al

**Send effusion to external laboratory for RT-PCR**

**Positive**

**FIP POSSIBLE**

**Is FIP**

- Treat with feline interferon omega: 1 MU/kg s/c eod or to site of effusion, or 3C like protease inhibitor, if available.
- See FIP treatment page at catvirus.com

**FCoV antibody test on blood**

- Negative
- Positive: PPV 58%

**Negatives**

- Negative*
- Negative

* FCoV antibody tests should be preferably performed on a blood sample, rather than an effusion sample, due to the risk of false negative results. Meli et al

**Diagnosing Non-effusive FIP**

**History:** Age Breeds
- An opportunity for FCoV infection is essential
- Around 70% of cats with FIP are pedigree
- Any age, but over 50% of cats with FIP are < 2 years old
- Usually a history of stress weeks to months prior to presentation

**Clinical Examination**
- Persistent moderate pyrexia > 4 days
- Weight loss / failure to gain weight normally – i.e. stunting
- Dull, lethargic, off colour
- Anorexia
- Intraocular signs (uveitis, keratic precipitates, aqueous flare, retinal vessel cuffing)
- Neurological signs (ataxia, fits, nystagmus)
- Enlarged mesenteric lymph node(s)
- Icterus
- Enlarged kidneys

**Blood Sample**
- Blood tests
  - Albumin:globulin > 0.8*
  - 27-45 g/l
  - <10mmol/l
  - >30%
  - Regenerative
  - Normal
  - Negative
  - Globulin
  - Hyperglob >46 g/l
  - Bilirubin
  - Raised
  - Haematocrit
  - <30%
  - Anaemia
  - Non-regenerative
  - Lymphocyte count
  - Lymphopenia
  - FCoV antibody test**
  - Positive

**External Laboratory**
- Normal
  - ALPHA-1 ACID GLYCOPROTEIN
  - Above 1500 ul/ml
- Negative
  - SEND BIOPSY/ FNA / AQUEOUS HUMOUR FOR RT-PCR
  - Positive

**FIP Possible**
- The predictive value of a negative FCoV RT-PCR test depends on the sensitivity of the test being used, the integrity of the RNA during mailing, and that an FIP lesion was accurately selected.
- **DO NOT DO RT-PCR ON SERUM OR BLOOD** – the test will be negative even in cats with FIP

**Is FIP**
- 100,000 units of feline interferon omega per os sid plus prednisolone or thalidomide.
- See treatment section of catvirus.com

* Note that 15% of cats with FIP have alb:glob 0.8
Diagnosing FCoV associated enteritis

**History**: Age Breed
- An opportunity for FCoV infection is essential, e.g. cattery exposure
- Any age of cat, though kittens over-represented, especially purebred
- History of diarrhoea, plus or minus vomiting
- No nutritional explanations, e.g. giving cow’s milk

**Clinical Examination**
- Possible stunting or weight loss
- Possible third eyelid protrusion
- Gassy abdomen possible
- Thickened large intestine possible
- Enlarged mesenteric lymph nodes

**Blood Sample**
- Negative* FCoV antibody test
- Positive
- Check other parameters to see if FIP is a concern
  (see non-effusive FIP algorithm)

**Faecal Sample**
- Negative
- FCoV RT-PCR
- Positive

**Is FCoV Enteritis**
- Treat with 3C like protease inhibitor, if available
- Or feline interferon omega and probiotics

**Not FCoV Enteritis**
- FCoV Enteritis unlikely: depends on sensitivity of test used

* Use FCoV antibody tests with best sensitivity available. Addie et al 2015
Using FCoV antibody and RT-PCR tests

Sick cat

? Wet FIP  
? Dry FIP  
Monitor FIP treat’

Diarrhoea  
? FCoV

FCoV Ab on blood

PP Neg depends on sensitivity of test

Positive

Not FCoV diarrhoea or FIP

FCoV RT-PCR effusion

Positive: is FIP

A positive FCoV antibody test does not indicate FIP

Healthy cat

In contact FIP

Screen

FCoV Ab on blood

FCoV RT-PCR on blood

Positive

FCoV diarrhoea is a diagnosis of exclusion

Negative

Go ahead

Positive

Re-test monthly

Negative

Positive

FCoV RT-PCR on faeces

Positive

FCoV Ab on blood

FCoV RT-PCR on blood

Positive

FCoV Ab on blood

Positive

FCoV Ab on blood

Positive

FCoV RT-PCR on faeces

Positive

Not FCoV diarrhoea or FIP

Positive

PP Neg depends on sensitivity of test

Negative

FCoV RT-PCR on blood is NOT recommended

PP Neg depends on sensitivity of test

Re-test monthly

Negative