DIAGNOSING EFFUSIVE FIP

1. 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

2. CAT PRESENTS WITH ABDOMINAL ENLARGEMENT OR DYSPNOEA
- Clinical examination reveals an effusion: which may be abdominal, pleural, pericardial, scrotal
- Cats with effusive FIP are often pyrexic, sometimes anorexic, bright or dull

Sample the effusion

3. IN HOUSE EXAMINATION OF THE FLUID
- Pus Blood Urine
  - <10g/l: FIP UNLIKELY
  - > 0.8
    - Albumin:globulin ratio:
      - < 0.8: Bacteria, malignant cells or mostly lymphocytes
      - > <0.8: Neutrophils and macrophages
    - Cytology:
      - Negative
      - Positive:
        - Rivalta test: Positive, PPV 58%
        - FCoV antibody test: ON BLOOD
      - Negative*

4. SEND EFFUSION TO EXTERNAL LABORATORY FOR RT-PCR
- Negative
- Positive

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

FIP UNLIKELY BUT POSSIBLE

NOT FIP

5. 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

Likelihood of effusive FIP according to age and breed

<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>

* 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. Use test kits with best sensitivity available. Addie et al 2016
**1. HISTORY**

An opportunity for FCoV infection is essential (e.g. breeder, rescue shelter or other source of FCoV exposure such as a new kitten)
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 (e.g. adoption, boarding cattery, neutering within many weeks in dry FIP)

**2. 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

**3. BLOOD TESTS**

- Albumin:globulin < 0.4
- Globulin Hyperglob >46 g/l
- Bilirubin Raised
- Haematocrit <30%
- Anaemia Non-regenerative
- Lymphocyte count Lymphopenia
- FCoV antibody test Positive

**4. EXTERNAL LABORATORY**

Alpha-1 acid glycoprotein Above 1500 ug/ml

Send biopsy/ FNA / aqueous humour for RT-PCR Positive

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

**FIP POSSIBLE**

100,000 units of feline interferon omega per os sid plus prednisolone or thalidomide.
OR Polyprenyl immunostimulant but NO pred.
See treatment section of catvirus.com

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

**HISTORY:**
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**

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

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

**FCoV enteritis possible**

**FCoV enteritis unlikely:**
depends on sensitivity of test used

**Not FCoV enteritis**

Be sure to rule out other bacterial, viral, protozoal, nutritional and parasitic causes

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

* Use FCoV antibody tests with best sensitivity available. Addie et al 2015

www.catvirus.com 2017
A positive FCoV antibody test does not indicate FIP.

FCoV diarrhoea is a diagnosis of exclusion.

PV = predictive value