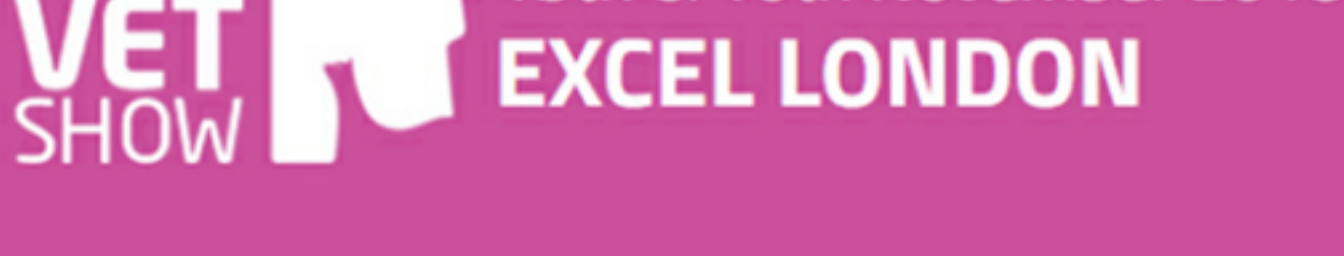


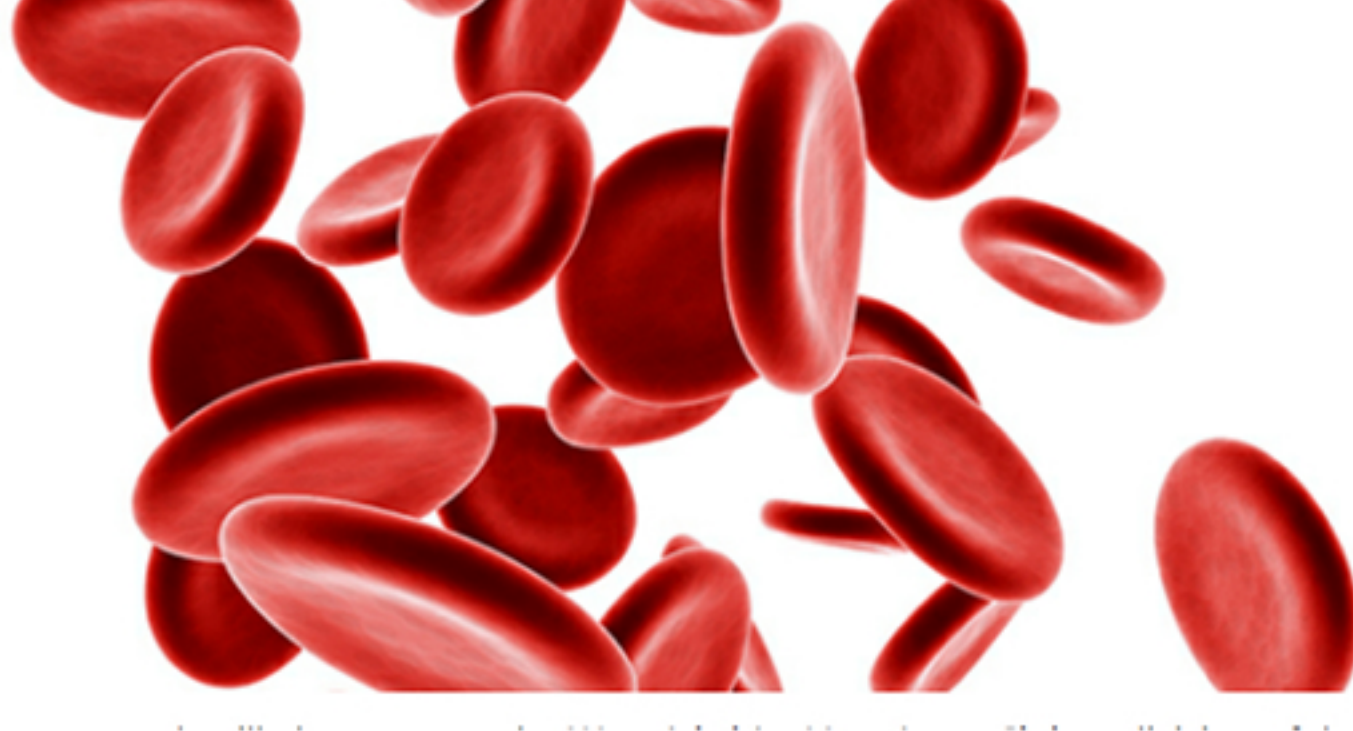
Newsletter 10/2018

We are pleased to welcome you to the monthly BattLab newsletter. This newsletter will bring you the latest news and information about our laboratory and all tests that we can offer to all our clients.

BATTLAB AT THE LONDON VET SHOW (LVS) AND THE WARWICKSHIRE VETERINARY CLINICAL CLUB (WVCC)



BattLab will be present at the [London Vet Show](#) on the 15th and 16th of November. Come and visit us at our stand (X36), we have a small present for you. Looking forward to meeting you there.



This year BattLab will also sponsor the **Warwickshire Veterinary Club** (a division of the British Veterinary Association - BVA). Meetings take place one Wednesday evening once per month at 730pm at the Holiday Inn in Leamington SPA (CV34 6RJ). The first seminar will be on the October 24th and will have Francesco Cian (Dip ECVCP) as a main speaker. He will talk about haematology in dogs and cats and the importance of the blood smear examination. For more information or registration visit [this link](#) or just turn up for the event.

[More information and registration](#)



DIAGNOSIS OF FELINE INFECTIOUS PERITONITIS (FIP): HOW LABORATORY TESTING CAN HELP YOU

What causes FIP?

Feline infectious peritonitis (FIP) is a viral disease of cats caused by certain mutated strains of a virus called feline coronavirus (FCoV). Natural infection with FCoV is very common but only in a small percentage of cats the infection may result in FIP.

What is the typical presentation for FIP?

FIP typically manifests in young cats as a vasculopathy resulting in ('wet') effusions or less commonly granuloma formation resulting in ('dry') mass lesions. Clinical signs seen in both forms include lethargy, anorexia, weight loss, pyrexia and sometimes jaundice.

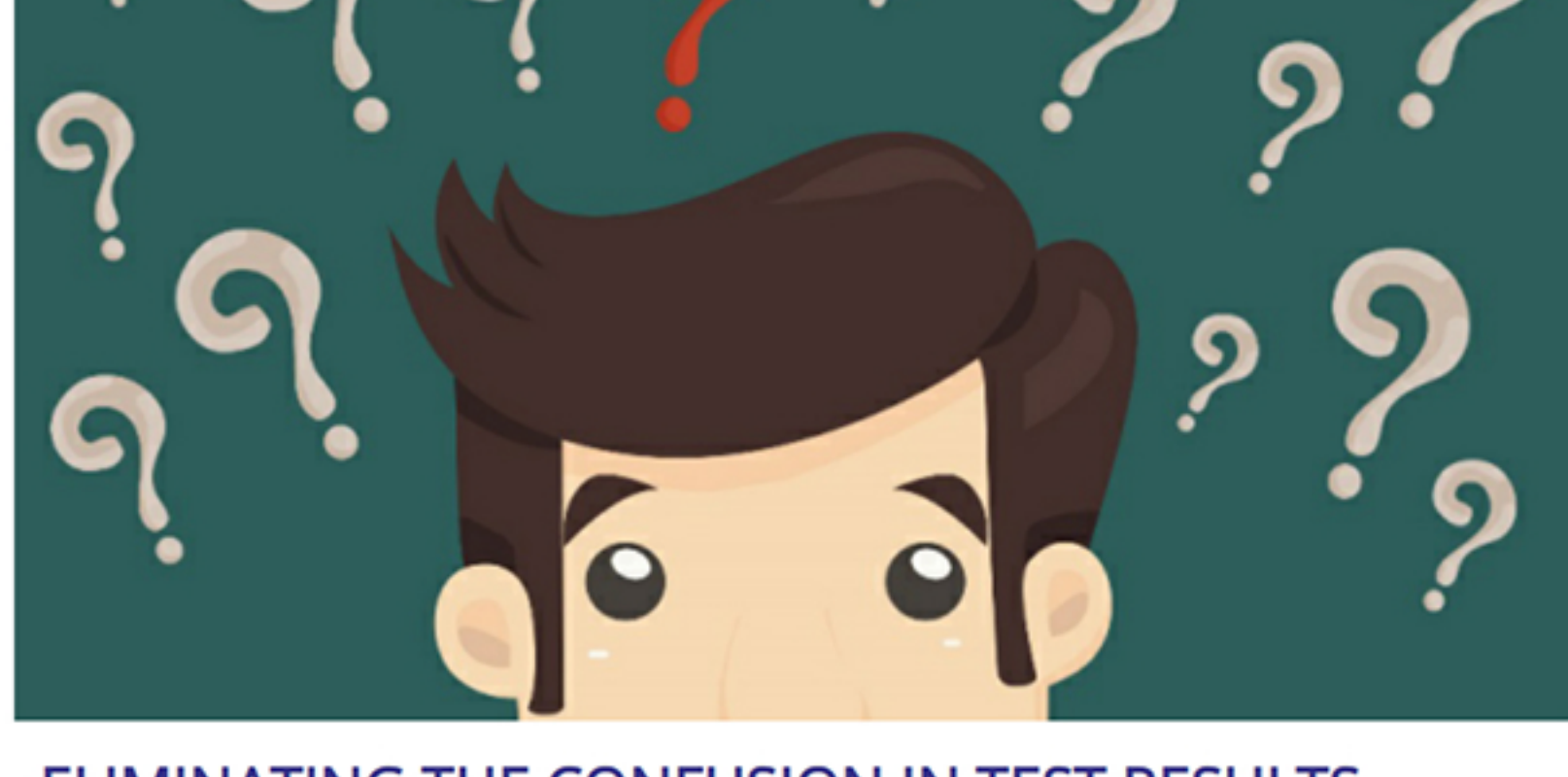
How can we reach a definitive diagnosis?

A definitive diagnosis of FIP traditionally relies on histopathological examination of tissues, usually with detection of the virus within the typical granulomatous lesions by immunohistochemistry for FCoV antigen. A non-invasive approach is more difficult and is based on the cat's signalment and history (young age), combined with findings on clinical examination (cavitary effusion and/or solid intrabdominal mass like lesions) and laboratory test results (e.g. hyperglobulinaemia, low A:G ratio, and hyperbilirubinaemia in the absence of hepatobiliary disease).

Which specialised test can be considered?

- **Cytological analysis of any effusion sample** in a suspected case of FIP is extremely helpful for diagnosis, therefore obtaining samples of effusions should always be a priority. Effusions in FIP cats have a characteristic clear, viscous, yellow appearance, with high total protein (and globulin) concentration and relatively low cell count (generally a mixture of neutrophils and macrophages).
- **Detection of FCoV by PCR**, especially if present at high levels in effusions, tissue samples, CSF and/or aqueous humour, is highly supportive of a diagnosis of FIP, in particular when correlated with appropriate clinical findings.
- **Serology for FCoV antibodies** is also available but is considered of limited use.

BattLab also offers a very wide panel of tests for all domestic animals, including PCR and serology testing. For more information give us a call or check our [website](#).



ELIMINATING THE CONFUSION IN TEST RESULTS – LIPAEMIA

After haemolysis, lipaemia is the most frequent endogenous interference and it can be a significant source of error with clinical laboratory testing. It results from sample turbidity caused by accumulation of triglycerides and cholesterol.

The most common pre-analytical cause of lipaemia is **not fasting prior to blood collection**. This causes an increase in triglycerides and possibly also in cholesterol. Post-prandial lipemia can be minimized by collecting blood after a 12-hour fasting.

Persistent fasting lipaemia indicates an underlying lipid disorder and indicates an increase in triglycerides and/or cholesterol; it should draw attention toward an endocrine-based disease, protein-losing nephropathies, pancreatitis, hepatic disease and medications (mainly glucocorticoids). Inherited lipid disorders (e.g. familial hypercholesterolaemia) have been reported in several canine breeds, including Briards, Rottweilers, Shetland Sheepdogs, Dobermans and Miniature Schnauzers.

The laboratory may employ various manoeuvres for **reducing lipaemia** and through this, interference with measurements. The two primary approaches are **ultracentrifugation** (with subsequent removal of the lipid layer) or **addition of reagents to clear the lipids**.

While low levels of lipaemia usually do not significantly affect clinical laboratory testing, the presence of moderate to severe lipaemia is likely to impact laboratory analysis.

Table 1. shows the effects of lipaemia on selected biochemistry parameters (NSI = no significant interference) and is based on the assays used at Batt Laboratories.

TIPS If the serum sample is lipaemic you may want to try some of the following tips.

- ☐ If blood tests are planned in advance, try fasting the patient beforehand for 12h
- ☐ Repeat sampling a couple of hours later may yield a less lipaemic sample.
- ☐ Collecting and centrifuging a larger amount of blood (e.g. 3-5ml) can sometimes yield enough clear sample between the lipid layer and red blood cells.
- ☐ Refrigeration of the sample overnight can help the separation.
- ☐ Centrifugation at higher than normal speeds can also assist in clearing the layer.

Table 1. Effects of lipemia on selected biochemistry parameters

Parameter	Lipaemia	Parameter	Lipaemia
Albumin	↑	GGT	NSI
ALP	NSI	Glucose	NSI
ALT	NSI	Lipase	NSI
Amylase	↓	Phosphate	NSI
Bile acids	↑	Potassium	↓
Bilirubin	↑	Sodium	↓
Calcium	↑	Total protein	↑
Chloride	↓	Urea	↓
Creatinine	↑		
Creatine kinase	↑		
Fructosamine	NSI		

NSI = no significant interference

Yours sincerely,
The BattLab team

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