

# Meningoencephalitis of Unknown Origin (MUO) in cats: bibliographic study and immunohistochemical reevaluation of suspected cases

## Objectives

- Bibliographic study of MUO in cats.
- Reevaluation of suspected cases from the UPMiC.
- Conclusions on the diagnosis of MUO in cats.

## Discussion

Case	Previous tests	IHQ Feline coronavirus
1	IHQ Feline coronavirus –	-
2	No information available	-
3	<b>Serology:</b> <ul style="list-style-type: none"> <li>• Feline coronavirus –</li> <li>• Feline herpesvirus –</li> <li>• <i>Toxoplasma gondii</i> –</li> </ul> IHQ Feline coronavirus +	+
4	No information available	+
5	<b>Serology:</b> <ul style="list-style-type: none"> <li>• <i>Toxoplasma gondii</i> –</li> <li>• Feline immunodeficiency virus –</li> <li>• Feline coronavirus –</li> </ul> IHQ Feline coronavirus +	+
6	No information available	-
7	No information available	-
8	<b>PCR</b> Feline coronavirus – <b>Serology:</b> <ul style="list-style-type: none"> <li>• <i>Toxoplasma gondii</i> –</li> <li>• <i>Bartonella henselae</i></li> <li>• Feline leukaemia virus –</li> <li>• Feline immunodeficiency virus –</li> </ul>	-
9	No information available	-
10	No information available	-
11	<b>PCR</b> feline coronavirus + <b>Pandy test</b> +	+

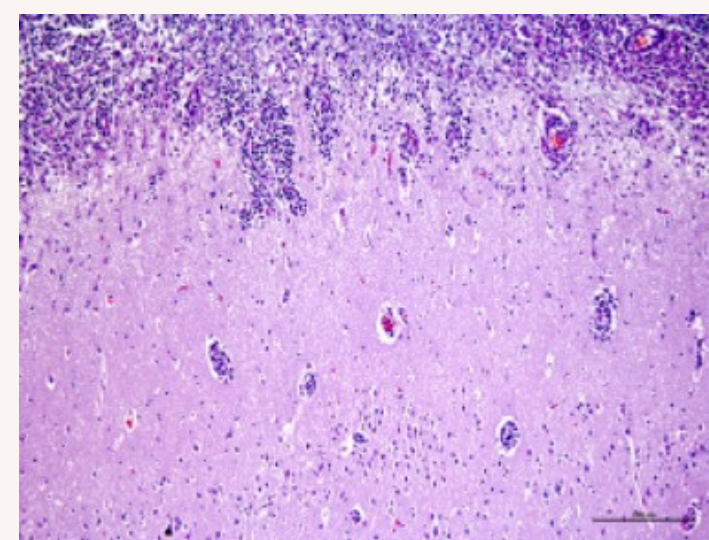
Table 2: IHQ results and comparison with previous tests.

## Materials and Methods

Infectious agent	Antibody
Feline coronavirus	Coronavirus (FIPv3-70) sc65653, QUIMIGEN
Porcine herpesvirus type I	1C11 IRTA-CReSA
Morbillivirus virus	CDV-NP, VMRD
Prion protein	Prion Protein Monoclonal Antibody – Sha31

Table 1: Infectious agents tested and their respective antibodies used.

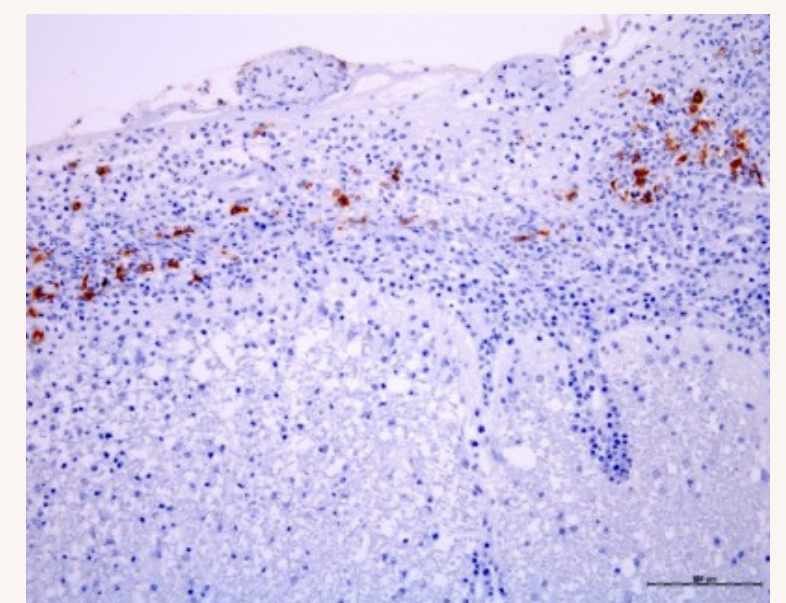
## Results



Non-purulent leptomenigeal infiltrates and perivascular cuffs in the cerebral cortex of a MUO cat. *H&E*

63.6 % of the cases were of an unknown origin (MUO). In the 36.3 % cases remaining the underlying aetiology was determined.

Leptomenigeal infiltrates containing immune positive FIP virus structures. *IHQ*



## Conclusions

- Further studies of MUO in cats must be carried out in order to acquire a deeper knowledge, perform an accurate diagnosis and find a possible treatment for this disease.
- The aetiology remained undetermined in 54.5 % of the cases studied. The aforementioned cases could be considered MUO.
- *Ante mortem* tests to discard infectious agents must be conducted using reliable techniques to avoid false diagnosis.
- It is of the utmost importance to possess a wide range of antibodies against many infectious agents so that these can be ruled out and enable the diagnosis of MUO.