Prevalence of *Trichomonas foetus* infection in cats in France

BRIGUI Nora1, HÉNAFF Maud2, POLACK Bruno1,2

1 Unité de Parasitologie – Mycologie
2 Unité de Médecine de l’Élevage et du Sport
3 INRA, AFSA, ENVA, UPVM, UMR 956 BIPAR
Ecole Nationale Vétérinaire d’Alfort
7 avenue du Général de Gaulle F-94704 Maisons Alfort Cedex, France

**Introduction**

*Trichomonas foetus*, a flagellated protist, is the causative agent of feline trichomonosis. *T. foetus* colonizes the colon, resulting in chronic, large bowel diarrhoea mainly in young animals. *T. foetus* also can be cultured from the faeces of asymptomatic cats.

Treatment of feline trichomonosis is difficult and only two drugs have demonstrated an efficacy: - ronidazole but neurotoxicity has been described - tinidazole.

These two drugs have not approved use for cats.

*T. foetus* is the primary causative agent of bovine uro-genital trichomonosis. *T. foetus* is also observed in pigs but, in this species it is considered as non-pathogenic.

Recently *T. foetus* have been identified in men with meningococcal meningitis and pneumocystis pneumonia. These data emphasize the zoonotic potential of *T. foetus*, although the existence of host-adapted *T. foetus* strains cannot be excluded.

In recent years, *T. foetus* have been observed in USA, in UK, in Germany, and in Austria.

In catteries, according to Goodis et al., there is an association between infection and the presence of diarrhoea, purulent cats, or high housing density.

To our knowledge, *T. foetus* have only been described in cats in France in 1925. The aim our study was to estimate the prevalence of *T. foetus* in French catteries and to identify risk factors for feline trichomonosis.

**Materials and Methods**

141 cats from 19 purebred breeding catteries were sampled in the Ile-de-France region (around Paris). The catteries were small family-sized breeding with between 2 and 40 cats. In each cattery, we sampled all diarrhoeic animals (soft faeces to chronic diarrhoea) and other cats were randomly drawn. A maximum of 12 cats were sampled per cattery. Cats were sampled with a sterile cotton swab which was inserted into the rectum and was gently moved in a circular motion against the mucosa.

Detection of *T. foetus* on rectal specimen was done by culture (immediately after sampling) using a commercially available system “In Pouch™ TF test” (BioMed Diagnostics, Oregon USA). The pouches were incubated at room temperature in dark for 15 days and microscopically examined every two days. This culture system doesn’t permit the development of *Pentatrichomonas hominis* an other trichomonad which is not pathogenic for cats.

**Results**

- Fifteen cats (10.2 %) and 9 catteries (47 %) were found infected by *T. foetus*. The mean prevalence inside positive catteries was 21 % (fig.4).
- Out of the 43 diarrhoeic cats, 8 were infected (18.6 %) and only 7x/104 (6.7 %) among the other cats, fairly 3 fold less but this difference wasn’t statistically significant (Yates’ chi-square test).
- There were little more infected cats in young animals: 7x/54 (13.0 %) in animals under one-year old against 8/93 (8.6 %) among older (not statistically significant).

**Conclusion**

- It is the second description of *T. foetus* in cats in France. The first description was done by Brumpt in 1925 in diarrhoeic cats.
- Our results are similar to those of Gunn-Moore et al. in UK where prevalence was 14 % among diarrhoeic cats but less than the results of Gookin et al. in USA, 31 % among cats and catteries. In addition, as Gookin et al., we observed that infection was more frequent in diarrhoeic cats.

**References**

1. BRIGUI E (1925) Recherches morphologiques et expérimentales sur le Trypanosoma felis parasite du chat et du chien. Ann Parasitol hum comp 3, 233-51
8. OKAMOTO S et al. (1998) *T. foetus* meningitis/pneumonia after alloergic peripheral blood stem cell transplantation. Bone Marrow Transplant 21, 89-91