

Tf

**Tritrichomonas Foetus
in Cats**

A practical guide for breeders

By

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TRITRICHOMONAS FOETUS IN CATS

WHAT IS Tf?

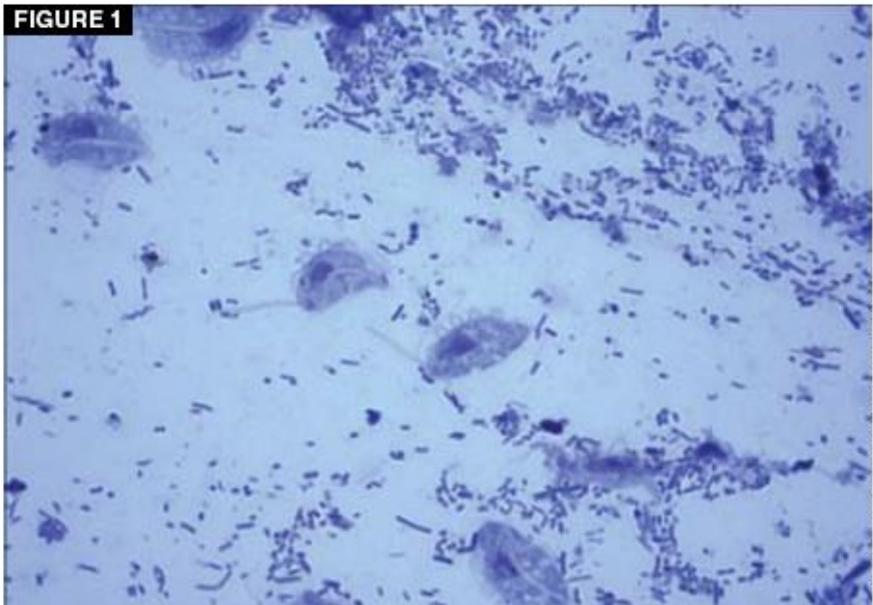
Tf is the commonly used abbreviation for *Tritrichomonas foetus*, a protozoal organism that is now known to be a common cause of diarrhoea in cats.

Originally the organism was known to be an important cause of abortion and infertility in cattle. Its role in feline disease has only become clear since the advent of DNA testing techniques as detection of Tf by traditional methods of microscopy and culture is difficult and unreliable.

BIOLOGY OF Tf

Tf inhabits the large intestine of the cat where it multiplies rapidly, feeding on the intestinal contents. It irritates the cells lining the intestine resulting in inflammation of the intestinal wall. The main function of the large intestine is to absorb water. The inflammatory changes that develop there in response to Tf interfere with this function resulting in soft or fluid faeces (diarrhoea) instead of the normal firm ones. Blood and mucus may also be seen in the faeces as a result of the inflammation in the intestinal wall.

FIGURE 1



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Tf is shed in the faeces of infected cats and FIGURE 1 shows Tf organisms in a faecal smear. It is a delicate organism and although it can survive in wet faeces for several days it dies rapidly in dry conditions and is easily killed by disinfectants. It does not form resistant cysts.

Cats become infected by ingestion of the organism mainly as a result of washing themselves after their fur and paws have become contaminated with faecal material.

CLINICAL SIGNS OF Tf IN THE CATTERY

The classic signs of Tf infection are diarrhoea, of variable consistency, associated with blood, mucus and increased frequency of defaecation FIGURE 2 shows the typical appearance of a bowel movement of a cat with Tf.



Cats remain well in themselves and weight loss is rare even in severe cases because absorption of nutrients is not affected with the disease being confined to the large intestine.

The difficulty for breeders is that the clinical signs of Tf are very variable. Many cats (especially mature adults) carry Tf without showing any signs at all. In others the signs may be very mild and intermittent soft faeces can easily be dismissed as due to sensitive digestion or dietary intolerance. Only one or two cats may be affected, which can also mislead the breeder and their vet into dismissing a transmissible cause.

Mild cases of Tf can also respond to dietary adjustment and pre/probiotic supplements which further mislead the breeder into thinking they have not got an infectious disease in the cattery.

The first thing that often makes a breeder aware they have the problem is when a kitten develops severe intractable diarrhoea after going to its new home.

The reason for the variable signs is probably related to the balance between the cat's immune system and the organism's ability to cause disease. More severe disease seems to occur in kittens and young cats with an immature immune system, or in cats exposed to any stress which suppresses the function of the immune system. Diet may also affect the clinical signs. Studies show that diets high in soluble fibre improve faecal consistency and frequency in Tf affected cats.

DIAGNOSIS OF Tf

Diagnosis of Tf is based on detection of the organism in faeces. In the past Tf infection was often missed in the cattery as the tests based on microscopy and culture of the organism frequently gave false negative results. This is because Tf is an extremely delicate organism and dies by the time any faecal sample submitted has reached the laboratory. Since the development of the Polymerase Chain Reaction (PCR) test which detects Tf DNA (unique genetic material), even in dead organisms, faecal testing has become much more reliable.

However false negative results can still present a slight problem due to intermittent shedding of the organism and inhibition of the test by other substances in the faeces. Langford Veterinary Services have now developed an improved test which further reduces the effect of the latter and also quantifies the amount of Tf in the sample.

It is strongly recommended that breeders test for Tf if they have a problem with soft faeces or diarrhoea in the cattery or in kittens after sale.

TREATMENT OF Tf

The only effective drug for treatment of Tf is Ronidazole. Even this drug does not completely eliminate the infection in all cats.

Ronidazole is a potentially toxic drug. It is a teratogen ie it causes birth defects in mammals. It must NEVER be given to pregnant cats and women of child bearing age should not handle it. Disposable gloves must always be worn by anyone when dosing cats.

Ronidazole MUST be prescribed by a veterinary surgeon. NEVER buy it on the internet. The safety margin is quite low and your vet will have to weigh the cat accurately and prescribe an exact dose. The drug is usually prescribed to be given once daily for 2 weeks.

Your vet will ask you to sign a disclaimer as ronidazole is not licensed for use in cats. Treatment is only recommended in severe cases with intractable or prolonged diarrhoea.

In mildly affected cats the symptoms may be effectively controlled by feeding a digestible high fibre diet with a pre/probiotic supplement such as Protexin Prokolin Enterogenic (Probiotics International Limited). In many adult cats the symptoms will resolve spontaneously with time as immunity develops.

In breeding households the decision regarding whether to treat all cats in the household is a controversial one. Treatment with ronidazole is unlikely to eliminate the organism from all cats and many will continue to shed it at low levels after symptoms have resolved

Treatment of affected cats combined with management measures to prevent spread of infection and reduce stress may be more effective than treating all cats without adopting additional measures.

PREVENTION OF Tf

Whether or not you have Tf carriers in your cattery the basic principles of good hygiene should apply. These measures will also help to reduce the Feline Coronavirus levels and hence the incidence of FIP.

Tf thrives in a damp dirty environment but is easily killed by disinfectant and quickly dies in dry conditions. Hence meticulous hygiene of litter trays, bedding and floors is essential.

Cats should be kept in small separate groups – ideally 2-3 per group. Make sure that cats in the group like each other as a stressed cat living in fear of its companions will be more vulnerable. Litter trays should be positioned as far as possible from food and water to avoid cross contamination (Fig 3).

If you have tested all your cats it would obviously be sensible to keep carrier cats separate from those which tested negative for Tf. Symptomatic cats should be isolated as they will be shedding much larger amounts of the organism.

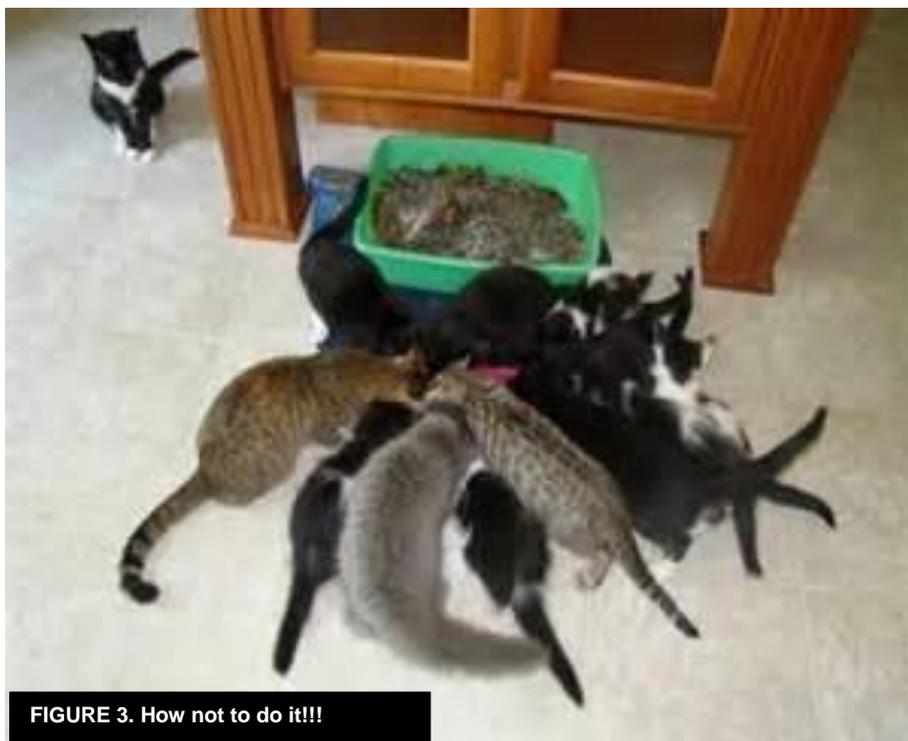


FIGURE 3. How not to do it!!!

It is also advisable as a good general principle to quarantine any new cat/kitten for 3 weeks and test for Tf before allowing to mix with other cats in the household.

The same advice applies to visiting queens which should be tested before going to stud. Owners of public studs should be able to provide evidence of freedom from Tf in the form of test results too. Queen owners should check that the stud owner only accepts Tf tested queens.

Kittens should be reared separately from other cats in the household. It is also good practice to adopt measures to prevent kittens sharing the mother's litter tray and, as a last resort when coping with persistent diarrhoea in a queen, to separate them from her as soon as possible after weaning. This will help to reduce the spread of this organism.

FURTHER INFORMATION

International Cat Care – general information

<https://icatcare.org/advice/cat-health/tritrichomonas-foetus-infection-cats>

Langford Veterinary Services – information about testing

<http://www.langfordvets.co.uk/diagnostic-laboratories/diagnostic-laboratories/pcr-acarus/tritrichomonas-foetus>

Tritrichomonas Foetus: A new agent of feline diarrhea, Mary K Tolbert & J Gookin, Compendium: Continuing Education for Veterinarians, 2009, Compendium Vet.com.

<http://www.vetfolio.com/infectious-disease/tritrichomonas-foetus-a-new-agent-of-feline-diarrhea>

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