RABIES IN CATS

What is rabies?

Rabies is a virus disease that can infect all warm-blooded animals, including cats and people, although some species are somewhat naturally resistant to the disease. When signs of rabies occur it is an almost invariably fatal disease.

Rabies has been recognized and described since as early as 2300 BC

How widespread is rabies?

Rabies occurs on every continent with the exception of Australia and Antarctica. Most countries have Rabies as an indigenous disease with the exception of a few islands such as Great Britain and Japan. These rabies-free countries have relied on strict quarantine laws to keep the disease out, and particularly to stop the virus getting into the wildlife of those countries. Britain and some other rabies-free countries are gradually relaxing quarantine regulations for fully vaccinated and microchip identifiable cats and dogs, but only from certain countries. These do not currently include the United States or Canada.

How is the virus transmitted?

Rabies virus does not survive long outside the body. Virus can be shed in the saliva of infected animals and bite wounds are the usual means of transmission of infection. In North America the skunk, raccoon and bat are important reservoirs whereas in Europe foxes are the main source of infection for people and other animals. In Asia, Africa and Latin America the main reservoir is not wildlife but stray, free-living dogs. In these areas infection of man is more common.

How long is the incubation period between a bite and symptoms?

This can vary from 10 days to 12 months or longer. Incubation in the cat is generally less than in the dog and is typically 3 to 8 weeks. Death usually occurs within 10 days from the first onset of signs. The speed at which clinical signs develop depends upon:

- The site of infection, the nearer the bite is to the brain and spinal cord, the quicker the virus reaches the nervous tissue
- The severity of the bite
• The amount of virus injected by the bite (rabies virus is not always present in saliva at the time an infected animal may bite another)

What are the clinical signs?

Following a bite or scratch from a rabid animal, the disease progresses in stages. In the first or prodromal stage, there is a marked change in temperament, quiet cats become agitated and can be aggressive and active extroverts may become nervous or shy.

This phase is then followed by so-called furious rabies that is by far the most common type in the cat. During this phase, excitement predominates and it is at this stage that the cat is most dangerous, both to other animals and to the owner. The cat becomes increasingly nervous, irritable and very vicious. Muscle spasms will often prevent swallowing and there is excessive drooling of saliva.

The third stage is the paralytic stage, which usually occurs after about 7 days. Ultimately the cat will become comatose and die.

A noted feature of the condition in cats is the widely dilated pupil throughout all stages of the disease.

Is it possible to survive a bite from a rabid animal?

In some cases there is no rabies virus, or very little, in the saliva at the time the rabid animal bites another, and therefore the bitten animal will not develop rabies. But when symptoms of rabies develop almost all cases will progress to death (there are very rare cases where people and animals have recovered). However, as Louis Pasteur was the first to show, it is possible to interrupt the progression from an infected bite to the onset of signs by the early post-bite use of anti-rabies serum (containing specific immune antibodies to the virus) and/or administering rabies vaccine. The vaccine stimulates the bitten animal to develop its own antibodies to the rabies virus and these antibodies neutralize the virus.

Is post-bite vaccination always effective in people?

The anti-rabies antibodies stimulated by the use of vaccine after a bite are only effective before the rabies virus enters the nervous system. Once in nerve cells the virus spreads along the nerve fibers and is protected from the affects of the antibody. Therefore the early use of vaccine is important in people that are exposed, or probably exposed, to a rabid animal. Of course, for people that are likely to be exposed to rabies because of their career (veterinarians, wildlife control officers, etc.) it is preferable to protect these people in advance by vaccinating them.

Is post-bite vaccination used in exposed cats?

Because of the potential risk to people, an unvaccinated exposed cat should not normally be given antiserum or vaccine, because it may mask signs of infection. If there is a high probability of exposure the safest policy is to put the animal to sleep, the alternative is strict quarantine for many months.

If the exposed cat has previously been vaccinated then a booster vaccination is indicated followed by a period of at least 30 days of quarantine and careful observation.
What is the treatment?

There is no treatment for a cat with rabies. If rabies is suspected the cat has to be kept in isolation and prevented from escaping or injuring someone and your veterinarian will notify the animal disease regulatory authorities. If the cat has not died it will then be put to sleep and a post mortem examination carried out.

Can I catch rabies?

Yes, the disease is zoonotic, meaning it can be transmitted to man. However it is only transmitted by the bite of a rabid animal. The virus is present in the saliva of the infected animal only for a limited time.

If you are bitten by any animal that may be suspicious for rabies you should immediately wash the wound thoroughly with soap and water and then seek the advice of a doctor without delay. Suspicious animals include stray or feral dogs; or any wild animal, particularly if the animal is showing unusual behavior such as lack of fear of people, salivation, or aggression. Post exposure rabies treatment with serum or vaccine may be recommended and is very successful if given immediately after exposure.

Should my cat be vaccinated?

Yes. Rabies vaccination is required by law in many states and provinces. Rabies vaccination of cats is important for your safety as well as your cats. Rabies vaccines are very safe and effective. They are usually first given at 3 to 4 months of age. Depending on your state’s laws and the advice of your veterinarian, revaccination may be recommended at varying intervals.

Are there any ill effects from rabies vaccination?

Rabies vaccines are very safe and there is no risk of the vaccine causing rabies. The formation of lumps (sarcomas) has been associated with some vaccines including rabies vaccines, but this is still poorly understood. These cases are very rare. As with all vaccines, the individual cat may show some transient mild side effects in the day or so following vaccination. These may include some lethargy and inappetance. If your cat shows more pronounced signs including difficulty in breathing this could indicate an allergic reaction to one or more components of the vaccine and you should call your veterinarian at once.

This client information sheet is based on material written by Ernest E. Ward Jr., DVM.

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