Snuffles (Pasteurellosis)

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Snuffles is one of the most common diseases that strikes domestic rabbits. Almost every rabbit breeder or long-term rabbit owner has dealt with or is at least familiar with this devastating respiratory disease. This disease is very contagious and can also affect the eyes, ears, and other organs. If detected early, it can be treated, but it can become chronic or fatal if left untreated. This article will help rabbit owners identify, understand the treatment, and prevent snuffles in their own rabbits.

Cause

Snuffles is a general term describing a group of upper respiratory signs. While there can be different causes of these infections, the most common and generally accepted cause of snuffles is infection with the bacteria *Pasteurella multocida*. There are several different strains of these gram negative bacteria and depending on the strain that infects a particular rabbit, the signs can be either mild or severe. Some strains are commonly found in the nasal tract of rabbits, but may not cause infections unless the animal is stressed or has a suppressed immune system.

Signs

The signs of snuffles can be varied, but are usually associated with the upper respiratory tract. Many infected rabbits will initially develop a watery nasal discharge followed by sneezing and then a thick, whitish to yellowish nasal discharge. These infected rabbits will often make a loud snuffling or snoring sound due to the fluid and mucous in their nasal tracts. Because rabbits groom their faces with their front paws, infected rabbits will often have discharge and mats on the inside of their forepaws.

The disease can also travel to their eyes causing conjunctivitis and a resulting discharge, or it may travel to their ears causing ear infections. These ear infections can then cause 'torticollis' (wryneck - twisting of the neck), head shaking, scratching, a head tilt, disorientation, circling, or inability to stand. The infection will sometimes clear up in the nose, but be persistent in the ears. In some severe cases, a rabbit may develop pneumonia or bacteremia (the bacteria enter the bloodstream). In a few cases, abscesses may form under the skin, in joints, or in the internal organs.

Treatment

Snuffles is generally treated with antibiotics for 14-30 days. Antibiotics commonly used include enrofloxacin (Baytril), ciprofloxacin, and trimethoprim sulfa. Rabbits need beneficial bacteria in their intestine to aid in digestion and they often need to be supplemented with these bacteria during and after antibiotic treatment; therefore, these drugs should only be used under strict veterinary guidance. In severe cases, supportive treatment consisting of fluids and supplemental nutrition may need to be given as well.

If the strain of *Pasteurella multocida* is a mild one and the immune system of the infected rabbit is strong, the symptoms may be mild and the animal will recover without treatment. However, if the strain is aggressive or the animal has a weakened immune response, the disease can be severe, chronic, and even fatal. The goal with treatment is to use an effective antibiotic at the first signs of infection. If the infection goes for days or weeks without treatment, it is likely that it will become chronic and very difficult to eliminate. In most cases, the signs of the disease may disappear, but the bacteria are usually still present, only in smaller numbers. Even in cases that are treated early, some animals will still develop chronic infections in their sinus passages that require long-term treatment, or even lifelong treatment to keep them under control.

Prevention

Snuffles is a very contagious and difficult disease to treat, so prevention plays a very critical role in trying to control and eliminate this disease. Breeders need to take special precautions including strict sanitation and quarantine procedures. For the pet rabbit owner, the best prevention is to select a healthy rabbit. When choosing an animal for purchase, make sure that she is free of all signs of infection, including a runny nose. When choosing a young rabbit, the mother and all the litter mates should also be free of all signs of disease. If you purchase from a breeder, it is also wise to observe all the rabbits on location and make sure snuffles is not present.

The disease can be present in the nasal cavities without the rabbit showing any signs of disease, so a healthy-appearing rabbit can still develop signs later if he is stressed. Reducing stress is also very important in helping a rabbit avoid infections and reducing the severity of the disease if he does become infected. Common causes of stress in rabbits include poor nutrition, improper housing, chilling, overcrowding, or aggression from other rabbits. To prevent stress, provide the best possible housing. Offer a variety of fresh vegetables and free choice timothy hay in addition to a properly formulated pelleted diet. Also, avoid letting your rabbit come into contact with other rabbits, particularly if they are sick. Because this disease can be transmitted through secretions on your hands and clothes, be very careful when handling other rabbits, and always wash your hands and clothes after handling a rabbit other than your own.

Snuffles is a disease that can have devastating consequences to rabbits. Because it is so contagious and widespread, rabbit owners need to be aware of its signs and seek veterinary attention at the first sign of illness. By understanding the disease and taking precautions against it, rabbit owners can help reduce both the severity and incidence of this disease.

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