Notoedric Mange

(Feline Scabies)

Notoedric mange is the scabby, scaly, skin disease resulting from infection by the feline mite Notoedres cati. Notoedres mites are closely related to Sarcoptic mange mites of dogs and thus the two infections have some similarity. Both conditions typically begin with itchy crusts and scales on the ear margins. Notoedric mange progresses to involve the face and ultimately, if the skin disease is ignored, it will cover the cat's entire body. The term "scabies" is somewhat colloquial and refers to a mite infection with any of the mites in Sarcoptidae family. In the United States, Notoedric mange is considered rare with regional "hot beds" of infection. Many veterinary dermatologists never see this condition in their entire careers. The Southern California area, however, is such a hot bed and here the infection is relatively common.



An example of classical notoedric mange symptoms

How is diagnosis confirmed?

A scraping of the crusty skin can be examined under the microscope. Mites and/or their eggs are generally not difficult to detect if they are present; still, their absence does not rule Notoedric mange out. Sometimes a trial course of treatment is needed to fully rule out the infection. The presence of the mite is highly inflammatory, hence the intense itching.

Can the infection be transmitted to other pets or to humans?

Yes, it can. *Notoedres* mites are spread by touch and they can certainly infect humans, dogs, or even rabbits. They do not live off their host for more than a few days at best thus transmission is generally by direct contact with an infected individual.

Treatment

ISOXAZOLINE CLASS FLEA CONTROL PRODUCTS

At present there are three products labeled for feline use: Fluralaner (Bravecto®), Lotilaner (Credelio®) and Saralaner (Revolution Plus®). These medications are the newest insecticides for cats and have become popular for killing fleas and ticks but they are also effective against mites such *Notoedres cati*. None of these products is actually approved for use against *Notoedres cati*; because of the rarity of *Notoedres* it is unlikely that any company will pursue official approval. A single dose should be effective and regular use of these products for flea control should be preventive.

SELAMECTIN (Revolution[®] and Revolution Plus[®]) – This topical medication was designed for flea, heartworm, and intestinal parasite control. In the dog, it is approved for control of sarcoptic mange mites but due to the rarity of *Notoedres cati* infection as noted above, Zoetis is unlikely to pursue the expensive process of gaining FDA approval for Notoedric mange. Still, selamectin is very effective against *Notoedres cati* and regular use of selamectin for flea control seems to be preventive.

MOXIDECTIN (Advantage Multi[®] and similar brands – This product is another monthly topical flea product similar to the other products listed. As with the others, regular use is preventive. Advantage multi® is used against fleas, ear mites, heartworm, roundworms, and hookworms.

IVERMECTIN - This medication, which is usually given as an injection, was one of the first treatments used against *Notoedres cati*. It is still used today. Treatment is typically weekly or every 2 weeks for a month and recovery is prompt. Doses approved for heartworm prevention in cats are not high enough to treat Notoedric mange; special dosing is needed.

DIPPING –In the past, a series of 6 or 7 lime sulfur baths or Amitraz (mitaban[®]) dips were used to control this infection. While this certainly works, the cat's general dislike of bathing has created need for a more convenient treatment. Further, lime sulfur has an extremely objectionable smell and will discolor fur. Amitraz tends to produce sedation in some patients and headaches in some humans. Not surprisingly, this treatment method is rarely employed nowadays.

It is important to consider that when one cat at home is diagnosed with this condition, all cats at home may require treatment.







Notoedric mange patient "Pete Rose" before treatment (Note the ear margin crusting which is a classical finding of Notoedric mange.)







Pete two weeks after a single ivermectin injection

