

Pigeon Fever....In Florida?
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For the first time in recent history, Florida is seeing a large number of cases of pigeon fever in horses. The state is reporting over 60 suspected equine cases in Okaloosa, Walton, and Marion counties as of June 2012. The majority of cases have been confined to the panhandle. This disease is caused by *Corynebacterium pseudotuberculosis*, which is a gram positive rod shaped bacteria. Horses and small ruminants typically get different strains of the infection, but cattle can get both types. In goats, the disease is known as caseous lymphadenitis, and affected animals will have external abscesses (the head, behind the ears, on the neck, shoulder or flank are some typical locations). Abscesses also occur in horses and cattle infected with this bacteria. Natural transmission from horses to goats or vice versa is not thought to commonly occur. *Corynebacterium pseudotuberculosis* is a soil organism that can survive for months to even years in direct sun. The largest numbers of cases are typically reported in the dry months of fall and winter.

Many things about this disease in horses are still not completely understood, such as the incubation period. The incubation period is the time it takes to develop clinical symptoms of the disease after being infected with the bacteria, and can be variable.... from weeks to even months. The bacteria can enter the horse through the skin, wounds, or abrasions in the mucous membranes. Horses with pigeon fever may have a poor appetite, fever, lethargy, swelling along the chest or ventral abdomen, and/or lameness. Three forms of the disease can occur in the horse: external abscesses, internal abscesses, and ulcerative lymphangitis. The most common form of pigeon fever is the development of external abscesses. These occur in about 90% of the cases. The disease got its name because abscesses will commonly occur in the pectoral region which becomes swollen and painful. In addition to the pectorals, abscesses may form on the prepuce, mammary gland, axilla, limbs, inguinal region, head, and other areas. There is no breed or sex predisposition for acquiring the infection, although young horses may have some increased risk. The second form of the disease is internal abscessation, which has been reported in about 8% of cases. The most common site of internal abscesses is the liver, although they can be associated with other organs as well. The third form, ulcerative lymphangitis, is a severe cellulitis that occurs in the fewest number of cases. Clinical cases of ulcerative lymphangitis have severe lameness and swelling of the limb.

Definitive diagnosis of pigeon fever is made by culturing the bacteria from an abscess or draining wound. There is a blood test available (called the synergistic hemolysis inhibition test) but the results depend on the severity and length of infection. This means that a negative blood test (titer) does not rule out the disease. In fact, early in the disease horses may have a negative blood test. The blood test is helpful in horses with internal abscesses, as the titers are typically very high (>1:512). Ultrasound examination may be a helpful diagnostic tool in these cases as well, especially for identifying internal abscesses in the abdominal cavity.

Treatment of pigeon fever is accomplished with drainage of external abscesses. The primary veterinarian should always be consulted about treatment. Abscesses should be allowed to mature and then drained. They should be flushed with antiseptic solutions. Purulent material drained from abscesses is highly infectious and must be carefully handled and disposed of. Collecting as much purulent material as possible into a waste bag for disposal is critical to reduce the risk of other horses being exposed. Bedding of infected horses should be properly disposed of as well. Pain medication may be indicated for horses with severe or deep abscesses or lameness. Topical fly treatment around wounds and draining areas is critical to reduce the possibility of biting insects transmitting the infection. Systemic antibiotics may be utilized for treatment on a case by case basis. In routine cases with external abscesses, antibiotics may prolong the course of the disease and are typically not required. However,

antibiotics are appropriate in cases with severe disease or reoccurrence of infection. Long term systemic antibiotics are required for treatment of horses with internal abscesses. Fortunately, *Corynebacterium pseudotuberculosis* is usually sensitive to most antibiotics (including penicillin), but culture and sensitivity of a sample of purulent material is recommended to direct therapy.

Unfortunately, no vaccine exists to prevent pigeon fever. It is recommended to isolate infected animals, especially if draining wounds/abscesses are present. Stalling affected horses will help reduce contamination of the pasture environment with infectious material. Horses should be treated in an area ideally with concrete or rubber flooring that can be disinfected. Although no reports exist of humans being infected from horses, there are reports of humans being infected with the sheep strain of the disease. Infection in people has occurred from the consumption of infected unpasteurized milk or milk products, close contact with infected animals, handling contaminated equipment, or exposure of wounds with infected material. Therefore, wearing gloves when handling infected horses is recommended. Fly sprays and feed through fly control may both be beneficial for insect control. If you suspect your horse is exhibiting signs of pigeon fever, contact your veterinarian for a thorough examination.