

Pig Owner's News for the

Hunter



Swine Erysipelas

November 2020

Erysipelas (also known as Diamond Skin Disease) is an infectious disease of pigs caused by the bacterium *Erysipelothrix rhusiopathiae*. This bacteria is common in soil samples, and can enter farms through the feed or water supply. Fish meal is also a potential source of introduction. Turkeys and sheep are also able to infect pigs on farms where they are present. Up to 20% of pigs may carry the organism on their tonsils without showing any clinical signs, and are therefore a source of infection for susceptible pigs. It is a disease that is most commonly seen in growing pigs, and often occurs after a period of stress.

Clinical signs include fever, skin lesions, arthritis and sudden death. It can also present as abortion in pregnant gilts and sows. Clinical signs can be acute, subacute or chronic.

Pigs with the acute septicaemic form may die suddenly without showing any clinical signs. They usually have a fever, walk stiffly on their toes, are thirsty, anorexic (not eating), spend a lot of time lying down separate from the other pigs and resent being disturbed. Skin lesions vary from red to purple on the ears, snout and abdomen to the classic diamond-shaped skin lesions anywhere on the body, that are synonymous for erysipelas. The lesions can often be felt before they become visible. Post mortem findings may be unremarkable except for a very large spleen, which is suggestive of erysipelas.



Clinical Signs in the subacute form include skin inappetence, a mild fever and skin lesions that usually self heal in 1-2 weeks.

The chronic form may follow acute or subacute disease as well as subclinical infection and most commonly presents as arthritis. Infection of the heart valves may also occur, leading to chronic heart failure which may present as shortness of breath,

and may result in sudden death after exertion, such as mating.

Stress factors such as overstocking, mixing pigs after weaning and sudden changes in temperature can also trigger clinical erysipelas. Environmental contamination is common because the bacteria are excreted via saliva, nasal secretions, faeces and urine. The bacteria can survive for weeks outside the pigs. Shelters with deep litter bedding allow for environmental build up of bacteria.

Diagnosis: Diamond-shaped skin lesions are pathognomonic for swine erysipelas. Sudden death, fever, stiff gait, and a reluctance to move, are highly suggestive for acute erysipelas. However, this still needs to be differentiated from other diseases that present similarly, such as *Actinobacillus suis*.

Treatment with penicillin early in the disease usually leads to a significant improvement within 24-36 hours. There is no practical treatment for chronic swine erysipelas, however analgesia may be beneficial in pigs with the arthritic form.

Prevention: A vaccine is available and should be given to all gilts and young boars prior to breeding. Sows should be vaccinated 3-4 weeks prior to farrowing (which will boost her colostral antibodies and protect her offspring) and boars should be vaccinated every 6 months. Hygiene and good management are paramount to preventing spread and managing any outbreaks.

Zoonosis: Erysipelas is a zoonosis, which means that humans can become infected from pigs. In humans, infection causes erysipeloid, a local skin lesion. In severe cases it can also cause endocarditis and acute septicaemic disease. There is no vaccination available for humans. Hygiene is essential to avoid contracting this disease. Even if there are no skin lesions present on the pig, humans can still become infected from handling them.



Erysipelas lesions in humans

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