

## RAPID COMMUNICATION

## Outbreak of Swine Erysipelas in a Semi-Intensive Wild Boar Farm in Spain

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**Summary**

Swine erysipelas (SE) is a disease caused by the bacterium *Erysipelothrix rhusiopathiae* and is one of the best-known and most serious diseases affecting domestic pigs. However, few studies exist concerning the susceptibility of wild boars to this disease and the role of this species as a reservoir. This study investigates and describes an outbreak of SE that occurred on a semi-intensive wild boar breeding farm housing 40 boars in Extremadura (SW Spain) on 11–18 February 2010. Seven animals died, of which four were examined post-mortem. Of these, three (two females and one male) were approximately 3 months old, and one was 1 year old (male). Lesions were consistent with acute septicaemia, consisting of cutaneous erythema/cyanosis and petechial haemorrhages in kidneys, urinary bladder, lungs and meninges. The 1-year-old male also had proliferative polyarthritis. Histopathology confirmed the presence of disseminated intravascular coagulation and vasculitis. Additionally, a bilateral acute panuveitis with concurrent necrotizing vasculitis and diffuse corneal oedema, neither of which have been described before in this disease, were found in the 3-month-old male boar. *E. rhusiopathiae* was isolated from all four animals in pure cultures from several tissues. Of these four animals, antibodies against *E. rhusiopathiae*, using an indirect ELISA test, were only detected in the 1-year-old male boar with polyarthritis. Posteriorly, of nine live adults tested for antibodies, four (including an adult male with polyarthritis) were positive.

**Introduction**

Swine erysipelas (SE) is a disease found all over the world that has an important economic impact on pig farming (Wood and Henderson, 2006). The cause of SE is *Erysipelothrix rhusiopathiae* (*E. rhusiopathiae*), a small Gram-positive, facultative anaerobic, non-spore-forming and non-acid-fast bacillus (Brooke and Riley, 1999). Although SE is the best-known disease caused by *E. rhusiopathiae*, this microorganism also causes disease in other domestic animals, particularly in turkeys and sheep (Wang et al., 2010). This pathogen is also a zoonotic agent, and infec-

tions in humans may result in cutaneous erysipeloid lesions, endocarditis and septicaemia (Brooke and Riley, 1999).

The source of infection in an outbreak of erysipelas is seldom known. The most important reservoir of *E. rhusiopathiae* is domestic pigs, which may act as apparently healthy carriers. Up to 10–50% of healthy swine harbour the organism in their oropharynx (tonsils) (Okolo, 1986; Takahashi et al., 1987), and infected or subclinically diseased animals act as a source from which other individuals can be infected. Bacterial shedding has been demonstrated to occur in nasal secretions, saliva and