

TAKE AN INDIVIDUAL APPROACH TO TACKLING LAMENESS

Duncan Berkshire (MA VetMB MSc CertPM MRCVS), from XL Vets' Bishopton Veterinary Group, outlines how to diagnose, treat and prevent a recurrent lameness problem in finisher pigs

QUESTION:

We are having trouble with batches of finishers on straw, where a significant proportion of pigs are suddenly becoming lame. Some individuals are lame on a single leg, but generally they are just very stiff and walk with a hunched back. We jab pigs and most recover very well, but it is taking more and more time and is hard work. I was told this was *Mycoplasma* at play, but we are enzootic pneumonia negative and all the pigs are doing very well apart from the lameness, so I can't understand what is going on.

ANSWER:

From what you describe, particularly if this occurs mainly in the later stages of a batch, this does sound like a classic case of *Mycoplasma* type lameness.

This is caused by *Mycoplasma hyosynoviae*, which is a completely different species of *Mycoplasma* to that which causes the respiratory disease enzootic pneumonia, or *Mycoplasma hyopneumoniae*. There is no interaction between these infections, nor any cross protection, and *Mycoplasma hyosynoviae* causes its main effects within the joints rather than in the respiratory system.

JOINT INFLAMMATION

Mycoplasma hyosynoviae causes inflammation within the joints, commonly known as arthritis, and it usually presents as a high based lameness of both hind limbs. This means that the hips and the knees (stifles) are commonly affected and the pigs show reluctance to rise and stiffness on moving, often with a characteristic shortened stride. Replacement gilts often show more subtle signs, although



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they do spend shorter times moving around and an increase in ‘dog sitting’ within pens.

Pigs with early stage infections will show marked improvement purely through normal moving around, with it being very difficult to find the affected pigs within a couple of minutes after you have disturbed them. The swelling and associated pain will still be present,

however, and will lead to a reduced feed and water intake along with an associated decrease in growth rate.

If younger pigs are affected then they can present with a more acute swelling of individual joints, giving a more pronounced lameness on an individual leg.

The infection can remain for up to four weeks in a dry environ-

ment, even longer in wet conditions, and moves between pigs through direct contact and through the air in droplets. It enters the pig through the tonsils, where it also persists so that it can infect further pigs via the routes just described.

TENDON SHEATHS

From the tonsils, the *Mycoplasma* moves into the joints and tendon sheaths through the bloodstream where it sets up an infection and associated inflammation. Sows usually develop an excellent immunity and transfer this to their piglets through their colostrum, giving up to 12 weeks of good quality protection. This is why we



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typically see the earliest infections in growing pigs from this age onwards.

As you may already have discovered on your unit, it is very difficult to currently get a good diagnosis of whether you have a major *Mycoplasma* infection causing lameness within your pigs. Post mortems can be carried out and samples taken for culture, but the *Mycoplasma* family is very difficult to culture and these are often unrewarding.

There are no blood tests that can be run to prove infection and diagnosis is often made from the

clinical signs seen on farm and the response to movement and treatment. Difficult as it can be, individual assessment and treatment is the best course of action here if you have affected pigs. This means that each pig has definitely received the correct dose.

PAIN RELIEF

Water and in-feed medication can be employed, but any reduction in intakes that are often seen will make this method more difficult to achieve good results with and should be discussed with your vet. *Mycoplasmas* are not responsive to the penicillin family of antimicrobials so these should not be used – discuss other options, such as lincomycin or tiamulin, with your vet. Both generally show a good and quick response, although a full course should always be completed to prevent relapse at a later date.

Concurrent anti-inflammatory/pain relief should also be considered to assist the response clinically (steroid or non-steroidal). Frequent moving of the pigs should also be encouraged to increase movement through the joints, reduce stiffness and improve intakes. Although some

cases do appear to resolve spontaneously, most untreated cases lead to chronic lameness in the longer term.

INCREASED STRESS

Prevention and control is difficult for this infection that is very widespread within the pig industry worldwide.

Disease will usually result from high levels of infection challenge and increased stress within the pigs, such as around moving and mixing. Since *Mycoplasma hyosynoviae* spreads in a similar way to respiratory diseases, any ventilation issues that can help spread the organism on farm or increase the challenge will also increase the amount of disease seen on the unit.

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There are no current vaccines available for this infection.

Full clean down and disinfection of buildings certainly helps between batches, along with using lime wash on floors and walls. Resting of sites is another major assistance with reducing carryover from one batch to another, although this is not always practical within pig flows. Otherwise prompt identification of affected pigs and swift treatment will reduce the spread within groups once it has been identified.

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Ask the vet...

Email your animal health questions to sophie.throup@xlvets.co.uk