

Glasser's Disease

Glasser's disease is caused by a bacterium called *Haemophilus parasuis*. Acute outbreaks can cause a high mortality, while it is also an important cause of pleurisy found in slaughter pigs.

It mainly affects 8-10 week old weaners, although infection of a naive herd can cause clinical signs in any age including adults. Any stress on the pigs, such as viral challenge (PRRS or Swine 'Flu) or changes in environmental temperature, can trigger clinical disease.

The bacterium has many different strains, with only some of these causing clinical disease. Immunity to infection does occur but it is strain specific, meaning that if the pigs are infected with a different strain of the bacterium, clinical signs may be seen again.

Transmission between pigs is by nose-to-nose contact and also by air droplets. Between farms, spread is generally by the movement of carrier pigs that are not showing clinical signs of disease.

The pig only needs to become infected with a small number of bacteria for clinical disease to occur.

Clinical Signs

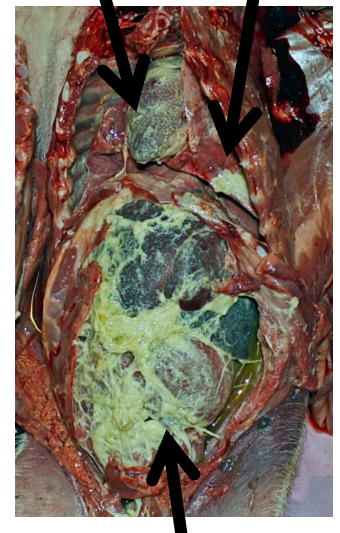
The bacterium causes inflammation to the surface of the lungs (pleurisy), heart (pericarditis), abdominal organs (peritonitis) and also the joints (arthritis). It can also then progress into a septicaemia (infection of the blood). Because of this pattern, it is also termed a 'polyserosital' disease.

In the most acute sudden form, pigs with severe septicaemia are found dead.

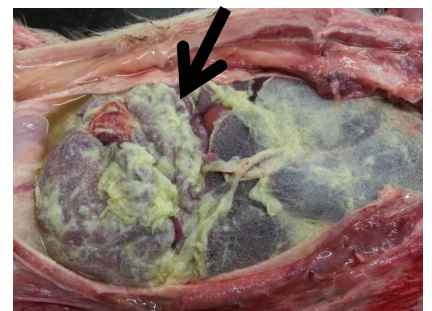
Pigs showing sudden clinical signs will be found lying collapsed, with an increased temperature (due to the septicaemia) and shallow breathing with visible effort as a result of the inflammation around the heart and lungs. During severe illness, the body's protection mechanism is to ensure that vital organs, such as the brain, receive enough oxygen, so meaning that blood flow to the skin and outer extremities is reduced. This results in a red to purple skin discolouration that is seen with Glasser's disease, usually of the ears and belly.

Feed and water intake will also be decreased, so there may be marked weight loss.

Pericarditis A small amount of pleurisy



Peritonitis, inflammation around the abdominal organs



As the bacteria also infect joints, these regions can become swollen and warm, with lameness as a result.

Surviving pigs can go on to develop chronic disease including chronic arthritis, pericarditis (inflammation around the heart), which can lead to congestive heart failure, and also chronic pleurisy that can be seen at slaughter.

Diagnosis

As the bacterium is delicate, it usually dies with the pig. In order to give the best chance of isolating Glasser's disease, if suspected, samples must be collected from a freshly dead or euthanased pig that has not been treated with antibiotics.

Treatment & Control

As soon as clinical signs are seen, treatment needs to be administered rapidly for it to be successful. Glasser's disease usually responds well to Penicillin. Where there are outbreaks of clinical disease, feed and water medication may be needed in order to treat in-contact pigs.

Most herds in the UK already have a strain of the bacterium on site, with the greatest risk of introduction of a new strain of the disease into a herd being through carrier pigs. Prior testing to ensure source pigs are clinically Glasser's free is not possible with current diagnostic tests.

The bacteria are delicate and does not survive long outside the pig, making it very sensitive to disinfectants and to drying.

Currently there are two commercial vaccines available, Porcillis Glassers and Suvaxyn M. Hyo Parasuis. Both vaccines contain specific strains of the Glasser's disease bacterium, however Suvaxyn M. Hyo Parasuis also protects against *Mycoplasma hyopneumoniae*, the cause of Enzootic Pneumonia.

As there are different strains of Glasser's disease in the UK, it is usually advised to isolate the specific strain causing clinical Glasser's disease on your farm to ensure that the vaccine would be effective to increase immunity in your pigs. With this knowledge, it is possible to create a protection programme that is likely to provide good coverage of the pigs on site.

In some cases, an autogenous vaccine may be advised, which is a specially designed vaccine that is farm and disease specific for your pigs.

Please speak to your Vet to discuss any questions you may have about Glasser's Disease on your farm.