

Ileitis

Ileitis is caused by a bacterium called *Lawsonia intracellularis*. It can affect pigs from 3 weeks old to adults, but it is commonly seen in recently weaned pigs.

In most herds, a decrease in growth rate is seen and the pigs appear uneven. Alone, the disease usually has a low mortality, but secondary bacterial infections can increase the disease severity. The disease can cause serious problems in herds where usually little disease is seen.

The bacterium is usually introduced to the herd through carrier pigs, i.e. pigs that are infected and shedding the bacteria but are not showing clinical signs of disease. It is transmitted between pigs through infected faeces and can be spread via contaminated clothing, boots and equipment. The bacterium can survive outside of the pig for 2 weeks at 5°C.

Clinical Signs

Pigs show clinical signs of disease 8 – 10 days after infection, but if the infection is severe, clinical signs can be seen earlier at around 4 days.

Once food has been broken down in the stomach, it passes through the small intestine so that nutrients from the food can be absorbed. It then passes through the large intestine so that water is reabsorbed before faeces are passed out of the pig.

The ileum is the final section of the small intestine before the large intestine. The bacteria invade cells lining the inside of the ileum and the first section of the large intestine. They then multiply inside these cells causing them to swell, so thickening the intestine (sometimes referred to as a 'hosepipe gut'). As the intestine thickens, along with ulceration of the inner lining, the available surface area is reduced. This means that fewer nutrients are absorbed so the pigs may appear stunted in growth. As a result, daily live weight gain and food conversion efficiency decreases.

The bacteria multiply inside the cells to such an extent the cells can burst. This releases the bacteria into the intestine, which can then infect other cells or pass out in the faeces to infect other pigs. The bursting cells can result in haemorrhage (bleeding) into the intestine, which is seen in the acute sudden onset form of the disease and is called PHE (Porcine Haemorrhagic Enteropathy). The blood is partially digested as it passes through the large intestine before it is passed out in the muck, making the faeces dark red to black in colour. Due to the blood loss, the pigs become anaemic and are pale, and sudden deaths can be seen.



Dark red to black colour due to digested blood in faeces

Courtesy of www.thepigsite.com

Due to the thickening of the intestine, fewer nutrients are absorbed from the small intestine, so in chronic, long-term infection pigs appear uneven. This form of the disease is called PIA (Porcine Intestinal Adenomatosis). Severely stunted or pale pigs may require euthanasia. Pigs that recover have a solid immunity and do not go on to show clinical signs again.

Diagnosis

To diagnose ileitis on farm, clinical signs are matched to diagnostic test results since the Lawsonia bacterium can be detected in clinically healthy pigs and are not always causing disease.

A post mortem of a freshly died or euthanased pig is often carried out. The thickening of the ileum, seen on post-mortem 10 days after infection, is tested for presence of the bacteria and histopathology (examination of the intestine under a microscope) is carried out.

Diagnosis can also be made from testing the faeces of a suspected case using a PCR test.



Picture shows thickening and transverse folds on the inside of a section of ileum – this is seen in a severe infection.

Photo courtesy of www.pigsite.com

Treatment, Control & Prevention

The organism is sensitive to a number of different antibiotics – usually long-acting tetracyclines, lincomycin, tylvalosin or tylosin. When possible, it is beneficial to have the organism cultured and an antibiotic sensitivity test carried out since potential secondary bacterial infections also need to be taken into account. Treatment of individual cases where possible is ideal, although in a disease outbreak water medication is usually required. Where there is an on-going clinical problem, a window of in-feed medication can be used.

Treatment to eliminate the organism can prevent pigs building up good immunity so they may become infected and show clinical signs later on.

There is a licensed vaccine that can be used to increase immunity in young pigs. It is a live oral vaccine, which is licensed from 3 weeks of age and gives 15 weeks of protection against the disease. It can be given individually by a pump vaccine gun into the piglet's mouth, or can be given through a clean water system. Care needs to be taken to avoid antibiotics 3 days prior and 3 days after vaccination, as antibiotics will inactivate the live vaccine.

To assist disease control, abrupt feed changes should be avoided. These can cause a flare up of disease as they cause an imbalance of bacteria in the gut. Feed changes should be done gradually with blending of rations.

To help prevent the disease entering the herd, incoming stock should be quarantined for at least 4 weeks. Strict biosecurity around and within the farm should be adhered to, rooms and/or houses should be run as all-in all-out, and there should be a cleaning and disinfection protocol between batches.

Please speak to your Vet to discuss any questions you may have
