International Pig Topics

Pighealth BYTES

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Foot & mouth disease IV

Lesions

Lesions often first appear as blanched areas that then develop into vesicles (in a similar way to how cold sores develop in man). These vesicles are found on the feet and in and around the mouth and sometimes may be seen on the snout, teats and udders, vulva and prepuce. The feet lesions can include claw shedding.

The expression of lesions can vary by foot and mouth disease virus type – the O Taiwan 1997 strain caused severe lesions in swine but was not seen in cattle and sheep.

If oral lesions are seen, they are usually seen on the tongue, whereas foot lesions are most common in the interdigital space, on the bulb of the heel and on the coronary band.

Lesions can be aged as follows:

Days	Pathology
0-2	Development of vesicles
1-3	Rupture of vesicles
2-3	Sharply marginated erosion
4-6	Serofibrinous exudation
>7	Healing with a marked fibrous tissue margin

If hoof horn is not shed following coronary band lesions a ring is formed in the horn, which becomes apparent a week or so after first lesions. This then progresses down the hoof as the horn grows.

Pigs under eight weeks of age that die from acute myocarditis have soft flaccid hearts with whitish stripes and so they are often referred to as 'tiger hearts'.

Differential diagnosis

The differential diagnosis should consider swine vesicular disease, vesicular stomatitis, and other virus infections such as vesivirus, SVV and PEV. Contact with caustic chemicals, trauma and photosensitisation should also be considered.

Because of the various viruses that can produce vesicles, diagnosis should include confirmation of the aetiological agent by virus isolation, PCR or ELISA.

Immunity

Antibody production can be detected as soon as 3-4 days after infection and involves humoral and cell mediated responses.

Maternal immunity is transferred to piglets via the colostrum and can last for up to 2-3 months.