Aujeszky's disease

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Definition

A viral disease caused by a herpesvirus that affects pigs but also carnivores, ruminants and horses, leading to encephalomyelitis-type nervous symptoms.

Affected species

Pigs, wild boars, carnivores, ruminants, horses.

Pathogens

Modes of transmission

Sources

Virulent matter

Pig oral and respiratory secretions, sperm, milk, carcasses, offal and meat (a problem for carnivores but not for man: it is not a zoonosis).

Transmission

Modes of penetration

Receptivity and susceptibility factors

Neurological disorders in piglets

Symptoms

In pigs

1.

Piglets < two weeks old

: fever, meningoencephalitis (trembling, convulsions, circling) and death within a few hours.
2.

Piglets two weeks-three months old

: fever, inappetence, meningoencephalitis and epilepsy-type convulsions, convalescence with retarded growth, or death.
3.

Fattening pigs

: inappetence, coughing and dyspnoea, death is rare but growth is significantly retarded.
4.

Sows

: abortion or stillbirth of all or part of the litter.
5.

Boars

: unapparent

In other species

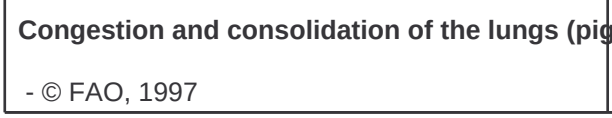
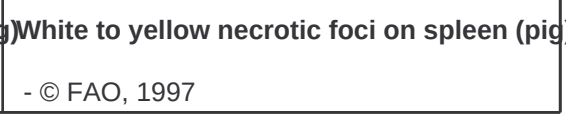
The symptoms are similar to rabies ("pseudo rabies").

The clinical signs are dominated by encephalomyelitis, paralysis of the pharynx and pruritus, causing death in less than 48 hours (faster than rabies).

There are also other forms: violent (death without symptoms), gastro-intestinal (vomiting,

diarrhoea) or forme fruste.

Lesions

Congestion and consolidation of the lungs (pig)  - © FAO, 1997	**White to yellow necrotic foci on spleen (pig)**  - © FAO, 1997

Diagnosis

Clinical diagnosis

Suspicion in the event of abortion, high death and meningoencephalomyelitis rates among piglets, respiratory problems in fattening pigs and cases among carnivores and ruminants on the farm (revealers).

Differential diagnosis

Aujeszky's disease should not be confused with :
1.

reproductive disorders

: classical swine fever (chronic form), erysipelas, dysgenic and respiratory syndrome, parvovirosis, leptospirosis, brucellosis, infection with SMEDI viruses.
2.

nervous disorders

: classical swine fever, contagious swine paralysis, NaCl intoxication, rabies.
3.

pulmonary disorders

: enzootic pneumonia, swine influenza, dysgenic and respiratory syndrome.

Laboratory diagnosis

Virological diagnosis

by virus isolation on cell culture and determination of the cytopathic effect and identification by seroneutralization or immunofluorescence.

Samples from pigs

: encephalon, tonsils, whole piglet, aborted foetuses, nasal swabs. For ruminants, the encephalon or the spinal cord from the area affected by pruritus if the symptoms are not on the head.

NB: treat the samples as if they were suspected of rabies .

Treatment

Sanitary prophylaxis

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In disease-free areas

: hygiene + introduction of animals from disease-free herds checked by serology

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In infected areas

:
1. For fattening pigs: complete fattening and disinfect.
2. For breeding stock: blood testing, and if the infection rate is > 20%, cull the whole herd, otherwise cull all the positives and repeat the tests.
3. Other species: avoid all contact with pigs and do not feed raw pig meat or offal to carnivores

Vaccines

Inactivated or modified virus vaccines.

Choose deleted vaccines, which make it possible to distinguish between vaccinated and infected animals, since vaccination does not prevent the establishment of a latent infection.
1. For fattening pigs, choose attenuated virus vaccines.
2. For breeding stock, vaccination is intended to protect the piglets through the colostrum, use only inactivated vaccines.
3. For other species, ruminants and carnivores can be vaccinated (unapproved use) with inactivated virus vaccines .

More information

Oui