

Haemagglutinating encephalomyelitis

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Nature of the disease

Haemagglutinating encephalomyelitis (vomiting and wasting disease) is a viral disease of pigs caused by a Coronavirus. Two different syndromes are recognised:

Classification

SPC List D disease

Susceptible species

Pigs are the only susceptible species.

Distribution

The virus is widespread in Europe and North America. It has been reported in Australia.

Clinical signs

HEV:

VWD:

Pigs older than 14 days are considered to only get sub-clinical infections. However, there have been reports of sows with anorexia, vomiting and loss of condition at the same time as HEV or VWD outbreaks in piglets.

Post-mortem findings

The findings at post-mortem are non-specific. The only lesions of note are those on histological examination of the brain, a non-suppurative, meningo-encephalomyelitis with extensive perivascular cuffing, gliosis and neuronal degeneration.

Differential diagnosis

Other causes of nervous symptoms in piglets with high mortality include:

Specimens required for diagnosis

Throat swabs (tonsils) and samples of brain and lung tissue should be collected from animals that have died in the acute stages of the disease for virus isolation. It is very difficult to isolate the virus from pigs sick for more than 2 weeks.

Blood samples can be submitted for serology, to demonstrate a rise in antibody. Techniques include Haemagglutination Inhibition or Serum Neutralisation plaque reduction.

Transmission

Virus is present in the central nervous system and the respiratory tract, but not in faeces.

Sub-clinically infected adult pigs can excrete virus from the respiratory tract for up to 10 days. There is no evidence of long-term carriers.

Risk of introduction

The virus is most likely to be introduced with sub-clinically infected pigs. This risk can be reduced by testing, or quarantining new arrival for a period of 2 weeks.

Control / vaccines

There is no specific treatment. Where the disease is endemic, pregnant gilts and sows should be exposed before they farrow, so that there is antibody in the colostrum.

References

1. Vomiting and wasting disease, In Merck Veterinary Manual, National Publishing Inc. Eight ed, 1998, Philadelphia, p 518-520
2. Vomiting and wasting disease of pigs, In Veterinary Medicine, Saunders, Eight ed, 1997, London p. 1015-1016
3. PENZAERT MB (1999), Hemagglutinating Encephalomyelitis Virus, In Diseases of Swine, Iowa state University Press, Ames, Iowa, USA, p. 151-157

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