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AUJESZKY'S DISEASE/PSEUDORABIES IN CATS

ABCD guidelines on prevention and management

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Virus

Aujeszky's disease/pseudorabies is caused by suid herpesvirus 1, belonging to the genus *Varicellovirus* in the subfamily *Alphaherpesvirinae*, family *Herpesviridae*, order *Herpesvirales*.

Epidemiology

Transmission of Aujeszky's disease virus in cats occurs mainly through the ingestion of raw pork, and particularly pork lungs or pig offal. It can also be indirect, following viral excretion by pigs and, therefore, in the absence of contacts with pigs. In the case of Aujeszky's disease out-

breaks in other species, such as sheep, feline cases have also been observed.¹

The disease has been eradicated in pigs in several European countries, and there is no longer a risk of Aujeszky's disease

virus transmission to cats. However, the prevalence of Aujeszky's disease virus infection in wild boar can be high in western European countries, and Aujeszky's disease is still sporadically observed in hunting dogs. This peculiar epidemiological situation does not represent an increased risk of infection for cats.

Pathogenesis

The virus enters via the oral route and replicates in the tonsils and the pharynx. It spreads through the central nervous system via the cranial nerves (Figure 1) and is excreted with oral and nasal secretions. However, this excretion has no epidemiological consequences, since the cat does not transmit the virus.

Overview: Although pseudorabies in swine – Aujeszky's disease – has been eradicated from many pork-producing countries, the virus may still lurk in other vertebrate species and cause feline cases. Infection occurs through the ingestion of uncooked meat and organ material and presents as an acute encephalitis with a short incubation period and a rapidly fatal outcome. The ABCD considers this reason enough to include a review of this, now very rare, condition in this Special Issue.

Aujeszky's disease in cats may potentially be mistaken for rabies – but disease progression is more rapid than in rabies, and affected cats are rarely aggressive.



European Advisory Board on Cat Diseases

The European Advisory Board on Cat Diseases (ABCD) is a body of experts in immunology, vaccinology and clinical feline medicine that issues guidelines on prevention and management of feline infectious diseases in Europe, for the benefit of the health and welfare of cats. The guidelines are based on current scientific knowledge of the diseases and available vaccines concerned.

The latest version of the Aujeszky's disease/pseudorabies in cats guidelines is available at www.abcd-vets.org

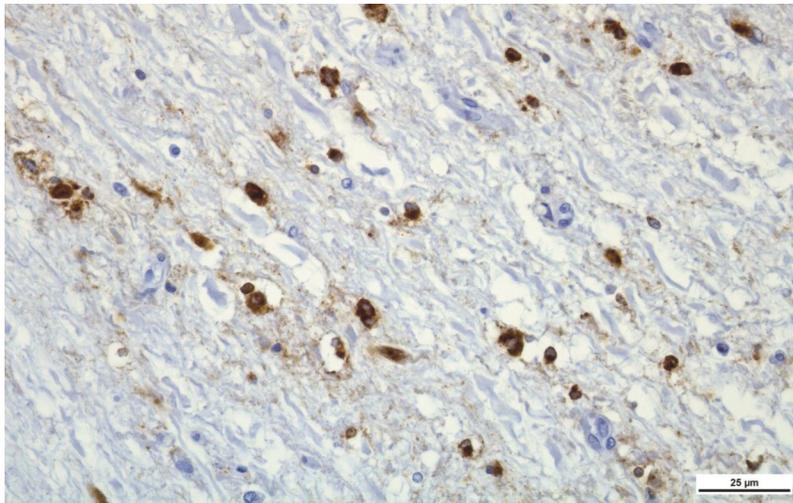


Figure 1 Immunoperoxidase staining of a brain section from a dog that had died from Aujeszky's disease. Infected cells show a brownish precipitate. Courtesy of Professor Pumarola, Universitat Autònoma de Barcelona, Spain

Clinical signs

This disease is encountered sporadically, mainly in urban cats fed pig offal. As in dogs, the incubation period is short, lasting for 2–4 days. The infection causes acute encephalitis, the initial clinical signs of which are excitation and hypersalivation. The cat presents with anorexia, sometimes with intense pruritus, which leads to lesions due to scratching and self-mutilation. More copious salivation ensues, and the nervous signs become more pronounced, with a lack of coordination and paralysis. When this clinical picture is observed, it may be mistaken for rabies. However, cats that develop Aujeszky's disease are rarely aggressive, and disease progression is more rapid than in rabies. The outcome is invariably fatal, within 12–48 h of the onset of clinical signs.²

Diagnosis

A polymerase chain reaction developed for the detection of Aujeszky's disease virus in pigs can be used on brain and lung tissue homogenates from cats. However, when clinical signs of encephalitis are seen in cats (pseudorabies), the differential diagnosis of rabies must always be ruled out.

Disease management

No treatment is possible with this deadly disease.

Control

Attenuated Aujeszky's disease virus vaccines have been developed to protect pigs, but these are still virulent for carnivores, including cats. Only inactivated or subunit vaccines are safe,

KEY POINTS

- ❖ Aujeszky's disease virus is a swine herpesvirus that can be transmitted to cats mainly through the ingestion of raw pork.
- ❖ Aujeszky's disease in cats presents as an acute encephalitis with a short incubation period and a rapidly fatal outcome.
- ❖ Prevention of infection relies on cooking meat or pork offal or, better still, using commercial pet food, as well as avoiding contact with infected pigs.



but they unfortunately have not demonstrated any efficacy against Aujeszky's disease in cats. Infection of cats (and dogs) can be prevented by cooking meat or pork offal, by feeding commercial pet food, and avoiding contact with infected pigs.³

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Conflict of interest

The authors do not have any potential conflicts of interest to declare.

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