

OPP & CAE

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Disease Transmission and Clinical Signs

Ovine progressive pneumonia (OPP) is a chronic disease of sheep caused by ovine progressive pneumonia virus, which is closely related to CAE (caprine arthritis encephalitis) virus. Infected sheep can shed virus in secretions from the lungs and udder. Animals typically become infected by consuming milk or colostrum containing the virus, though can be infected by inhaling droplets containing the virus. Antibodies may not develop for 3-4 months or more following infection. Sheep with OPP rarely show clinical signs of disease until they are at least 2 years old, and typically older than 4. Clinical signs of OPP may include weight loss, increased breathing effort, hard bag, and possibly weakness, paralysis, or difficulty maintaining balance if infection occurs in the brain. Some infected animals may never show signs of disease.

Diagnosis

Diagnosis in live animals is by testing blood samples for antibodies to OPP virus. Because no vaccine exists and because infection is chronic, a positive test result in an adult indicates an infected sheep. A negative test result in an exposed animal should be interpreted with caution because of the long incubation time of the virus. Re-testing exposed sheep every 6-12 months for 2 years is recommended. Lambs should not be tested before they are 6 months old, because circulating antibodies from their mothers make results difficult to interpret. Blood testing for OPP and CAE antibodies is performed at CAHFS using an ELISA test. The test does not distinguish between the two viruses.

Disease transmission and clinical signs

Caprine arthritis encephalitis (CAE) is a chronic disease of goats caused by caprine arthritis encephalitis virus, which is closely related to OPP virus. Like OPP, CAE is usually transmitted by consumption of milk or colostrum infected with the virus, although transmission can also occur via contact with infected animals, or feed bunks or other equipment contaminated with virus, which can be found in feces and lung fluids. An animal may not develop antibodies to the virus for 2-10 months or longer after infection. Many infected goats show no clinical signs of disease. The most common clinical signs of infection are enlarged joints (typically knees), lameness, loss of condition, poor hair coat, or hard bag. Animals with infection in the brain may have balance difficulties, progressive weakness, paralysis, or exaggerated reflexes. The brain form of disease is most common in kids.

Diagnosis

Diagnosis in live animals is by testing blood samples for antibodies to CAE virus. Because no vaccine exists and because infection is chronic, a positive test result in an adult indicates an infected goat. A negative test result in an exposed animal should be interpreted with caution because of the long incubation time of the virus. Re-testing exposed goats every 6-12 months for two years is recommended. Kids should not be tested before they are 6 months old, because circulating antibodies from their mothers make results difficult to interpret. Blood testing for OPP and CAE antibodies is performed at CAHFS using an ELISA test. The test does not distinguish between the two viruses.