

Pneumonia

Internal Medicine Service



Michigan Veterinary Specialistssm

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Locations

Auburn Hills

3412 E. Walton Blvd.
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(248) 371-3713

Grand Rapids

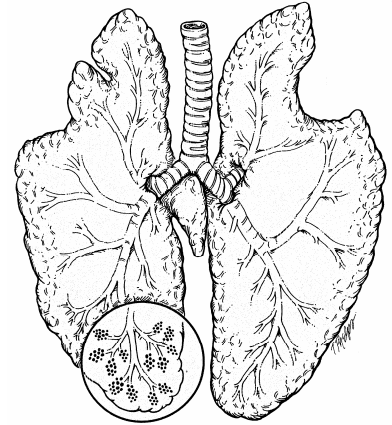
1425 Michigan St. NE
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(248) 354-6660

What is Pneumonia?

Pneumonia defines inflammation of the lungs. It is rare in cats, and far less common in dogs than in people. There are many types of pneumonia, with bacterial and fungal infections being the most common. The lungs of dogs and cats are normally not very susceptible to primary bacterial pneumonia, but prior lung damage predisposes them to secondary invasion by bacteria. In young animals, canine distemper virus and certain feline respiratory viruses cause severe damage to the cells lining the respiratory tract, making the lungs more susceptible to bacterial infection and pneumonia. In older patients with advanced chronic airway disease pneumonia may become a recurrent problem.



Aspiration pneumonia may occur when dogs or cats vomit then inhale the vomitus into their lungs. The inhaled stomach contents are highly acidic causing chemical burn to the lung tissue. Secondary bacterial infection may result. The presence of food material further complicates the pneumonia. Severe illness resulting in physical weakness will increase the risk for aspiration pneumonia should vomiting occur. Aspiration pneumonia may occur when animals vomit after surgery because anesthetic drugs depress the swallowing reflex, especially if they have not been properly fasted before surgery. Recurrent aspiration pneumonia is common in dogs with a condition called megaesophagus (dilation and lack of motility of the esophagus). Some diseases of the nerves that normally control swallowing can also allow entry of food into the lungs.

Signs

Animals with pneumonia typically present to a veterinarian for coughing, loss of appetite, depression, and difficulty breathing. They may have a fever. Lung sounds heard with a stethoscope may be increased because of the debris and fluid in the airways. The effort required to breath gives an indication of the severity of the pneumonia.

Diagnosis

Identification of the cause of the pneumonia is necessary for optimal treatment. Chest radiographs (x-rays) are required for accurate diagnosis of pneumonia. The pattern and location in the lungs can help to identify the type of pneumonia. With megaesophagus, there is a large dilated esophagus and lung inflammation typically occurs in the lower part of the lungs.

A complete blood count (CBC), chemistry panel, and urinalysis are helpful in assessing the severity of the inflammation and to identify secondary diseases that may have lead to the pneumonia. Bronchoscopy and bronchoalveolar lavage may be needed in order to collect samples of the fluid and cells within the lungs. Culture and cytology of fluid removed from the lungs gives insight into the type of pneumonia and, if infection is present, which antibiotics would be most effective. Since a bronchoscopy does require anesthesia, animals with severe disease would certainly be at increased risk of anesthetic complications.

Treatment

Antibiotics or antifungal drugs are the mainstay of therapy for bacterial or fungal pneumonias. Pets with severe respiratory difficulties may require oxygen therapy to improve their breathing. Nebulization of a fine water mist with the oxygen helps keep the airways moist, loosen thick mucus, and helps the lungs remove debris through coughing. Many animals with severe disease will require intravenous fluid therapy to prevent dehydration as well as intravenous antibiotics.

Prognosis

The outcome of dogs or cats with pneumonia is largely dependent on the cause of the pneumonia and the severity of the infection. There must be adequate lung capacity to maintain oxygenation for the body for at least 2-3 days to allow the antibiotics to begin working. Primary pneumonias without underlying disease are usually treated successfully. The prognosis for aspiration pneumonia depends on the ability to correct the cause of the vomiting and on the severity of the pneumonia.