

CONTAGIOUS CAPRINE PLEUROPNEUMONIA



This disease
is known to
occur in
Afghanistan.



1. Definition

Contagious caprine pleuropneumonia (CCPP) is a contagious mycoplasmal disease of goats characterized by severe respiratory lesions and high morbidity and mortality.

2. Etiology

The causative agent of CCPP is *Mycoplasma capricolum* subsp. *capripneumoniae* (*Mccp*), originally known as the F38 biotype. There are other related mycoplasmal organisms, such as *Mycoplasma mycoides capri* and *Mycoplasma mycoides mycoides* Large Colony (LC) type, and these can also cause pleuropneumonia but the pulmonary lesions are usually part of a spectrum of systemic illness and they are not strictly specific for lung.

3. Transmission

Transmission of CCPP is through droplet infection, respiratory secretions from a coughing animal must land in the respiratory tract of a susceptible host. Gathering or housing animals together facilitates spread of the disease.

4. Species affected

Only goats are susceptible to infection with *Mccp*. The other two may also affect goats and sheep.

5. Clinical disease

Morbidity can be 100% and mortality 60-100%. Incubation period is 1-4 weeks. Weakness, anorexia, cough, hyperpnoea, and nasal discharge accompanied by fever (41°C) are often found. Exercise intolerance is common.

6. Pathologic findings

Typically, the thorax contains an excess of straw-colored fluid, and there is acute fibrinous pneumonia, with extensive consolidation, and overlying fibrinous pleuritis. All lobes of the lung can be involved. Chronic cases may have severe pleural adhesions and multiple abscesses of variable size.

7. Diagnosis

When an entire group of goats develops high fever, respiratory distress, and the postmortem lesions are typical, a tentative diagnosis of CCPP can be made. Laboratory confirmation entails isolation of the causative organism, which is challenging.

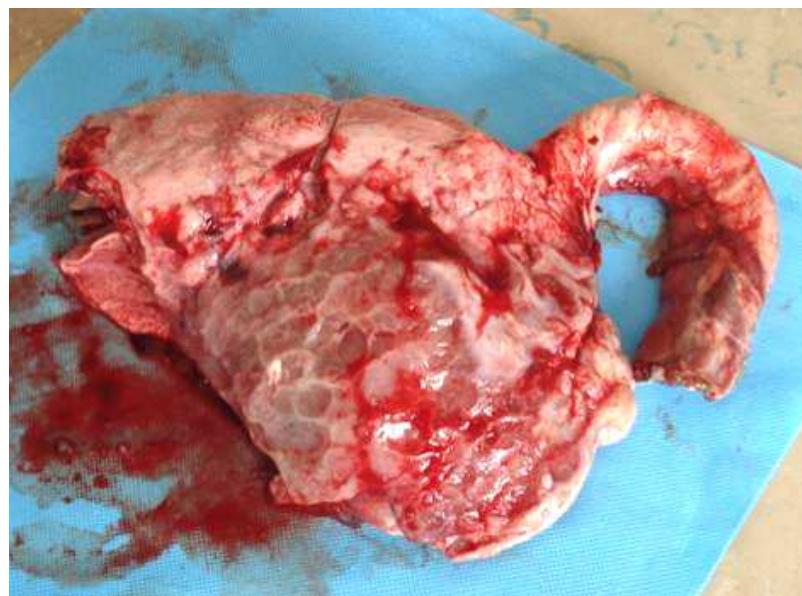
8. Treatment

Whenever possible, treatment should be based on bacterial culture and sensitivity, especially in herd outbreaks, when valuable animals are involved, or in acute or chronic cases when initial therapeutic attempts have failed. Commonly recommended antibiotics are oxytetracycline (15mg/kg) and tylosin (10-20 mg/kg). Therapy should continue for at least 24-48 hr after body temperature has returned to normal. Duration of treatment usually is 4-5 days.

9. Prevention and control

Inadequate ventilation, crowding, commingling of animals from various farms (feedlot or market situations), poor nutrition, failure of passive transfer of antibodies, transportation and other stresses have all been associated with pneumonia outbreaks, consequently control and

prevention lies with correction of the predisposing factors whenever practical. In Afghanistan many animals, both sheep and goats, are given an *M. capri* vaccine, and this is useful in preventing outbreaks of mycoplasmal pneumonia. Vaccine should be given before the start of the cold and rainy season.



CCPP - Severe consolidation and extensive fibrin deposition on the overlying pleura.