

MYCOPLASMASTOSIS

**Mycoplasma spp. has a wide host spectrum.**

**People in particular with goats, cattle, goats, sheep, pigs, horses and other animals (cats, dogs, rats)**

**causes pneumonia and other system diseases.**

# **BOVINE MYCOPLASMOSIS**

**Pleura pneumonia contagiosa**  
**Contagious bovine pleura**  
**pneumonia**  
**( Sığır akciğer ağrısı )**

# Pathogenesis

The causative aerogen comes to the lung by infection.

In the lung, before endobronchial; then it spreads to the peribronchial and passes from the parenchyma to the pleura.

Acute vasculitis in the arteries is caused by thrombosis and consequently necrosis and fibrin exudation in the lung.

Vasculitis is the result of hypersensitivity, which is caused by the association of the antibody with mycoplasma surface antigens.

(Arthus type or mixed hypersensitivity?).

**It spreads from where it resides by breaking the body resistance or by re-infection.**

**Acute relapses may occur or become chronic.**

## **Clinical Findings**

**The period of incubation is long (up to 1 month).**

**Mortality ranges from 10% to 70%.**

**In addition to general condition deterioration and fever is initially dry, then painful cough is detected.**

**With the onset of hepatitis, respiratory and pulse increases. Percussion is painful.**

**Immunity continues for 2 years or more after the disease has been overcome.**

## **Macroscopical Findings**

Pneumonia begins first in focal multiple foci in lung lobes or lobes

Then cover the entire lobe or lobes.

**It is complicated by fibrinous pleuritis !!!!!!!!!!!!!**

Pleura is covered with a defective yellow colored fibrin mass of different thickness. Over time, the adhesion between the leaves of the pleura is shaped.

**Although lesions are similar to other fibrinous pneumonia vascular thrombosis due to yellowish-colored large necrosis areas develop.**

These regions result in carnification during recovery period and mainly extensive sequester formation.

## **Microscopical Findings**

**Typical fibrinous (croupous) pneumonia findings are encountered.**

**Thrombosis is severe in veins and necrosis due to it is wide.**

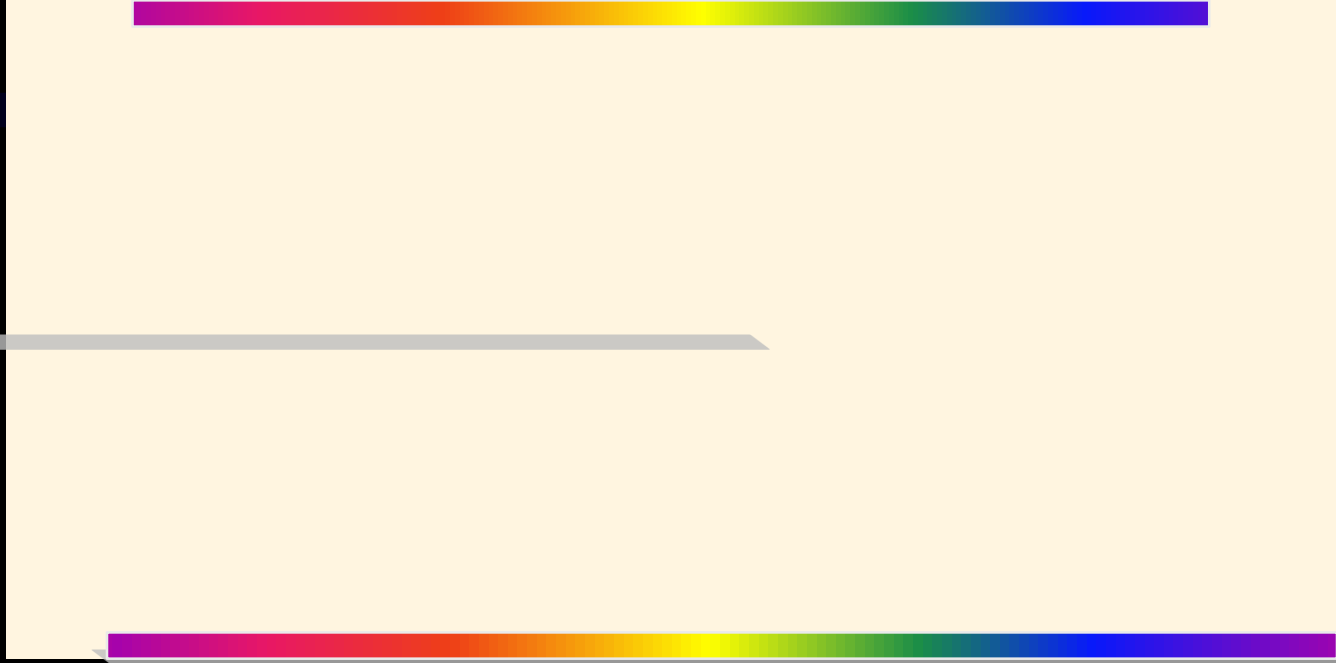
**When it is organized during recovery period; especially in the peribronchial perivascular regions is the criterion of morphological diagnosis.**

**Small areas of necrosis are filled with granulation tissue**



## Differential diagnosis

**It is more like pasteurellosis. Initially severe thrombosis and large necrosis; In the period of recovery peribronchial perivascular regions are distinguished from pasteurellosis by formation of secretion with distinct organization.**



## **Enzootic Pneumonie**

**Bronchitis, bronchiolitis, broncho-interstitial pneumonia events are caused by the synergistic effects of the enzootic pneumonia events in beef; .**

**Some are subclinical and subclinical bronchiolitis and pneumonia**

**M.dispar, M.bovis, M.ureaplasma types are held responsible.**

**Also M. bovis genitalium is sometimes isolated from such events.**

## **Pathological Findings**

There are no known fibrinous pneumonia findings! Qatarral, purulent, and partly intersititiel pneumonia are documented. Sometimes it is defined as atypical interstitiel pneumonia

### **These findings:**

- 1 - Cranioventral areas are localized in large areas. These areas are red colored and atelectatic.**
- 2 - Catarrhal bronchitis and bronchiolitis are found in the changes in the document of the intersititiel pneumonia.**

## **Other Infections with Mycoplasma spp. on cattle**

# **Mastitis**

**The agent is *M.agalactia*. Bovis is. (or *M.bovis*)**

**The inflammation is localized around the ducts with intersititial, interlobular regions of the breast.**

**Neutrophil leukocyte foci in these regions; In the ductus and glands, the neutrophil leukocytes are rich in exudate.**

**Hyperplasia in ductus epithelium in advanced cases. Edema, lympho-plasmocyter infiltration, fibrosis and eosinophilic leukocytes are seen in the intersititium.**

# Genital Infection

**In the cows :**

**It causes endometritis, salpingitis and localized peritonitis.**

**There is infiltration of endometrial edema and lymphoplasmacyter cells.**

**In the bulls:**

**Epididymitis, seminal vesiculitis is also responsible.**

**M.agalactia var.bovis was obtained from amniotic fluid from necrosis and purulent placentitis.**

***SHEEP***

***GOAT***

# Contagious Caprine Pleura-pneumonia

The agent *M. mycoides capri*, subsp (var.) *Mycoides*  
(PPLO)

**Cattle were not susceptible to the disease.**

It is characterized by findings of fibrinous pneumonia. Necrosis and sequester are seen in advanced conditions. Fibrinous pleuritis, end with adhesive pleuritis.

Also:

In goat kitten; fibrinose pericarditis, meningitis, intersititiei pneumoni (as in cattle)

In Goats; arthritis, peritonitis, abortus, mastitis (as in cattle).



# **SHEEP**

**It comes from *M.ovipneumoniae*.**

**In sheep, together with *Pasteurella haemolitica*, enzootic pneumonia is held responsible !!!!!!!**

**Such lesions are characterized by chronic catarrhal bronchitis, moderately chronic alveolitis, and peribronchial lympho-plasmasite infiltrations.**

**Fibrinous pneumonia and pleuritis were: experimentally, *M.mycoides* of goat origin, and *M.dispar* of cattle origin.**

**The lesions of *M.agalactia* are as in goats and cattle.**