

# Mycoplasmosis

## Infectious Diseases Caused by *Mycoplasma*, *Ureaplasma*, or *Acholeplasma*

### Basics

#### OVERVIEW

- “Mycoplasmosis” is the general name for diseases caused by three groups of infectious agents: *Mycoplasma*, *Ureaplasma*, and *Acholeplasma*; each of these infectious agents are gram-negative bacteria that can live and grow in the absence of much or any oxygen (known as “facultative anaerobic” bacteria); they lack cell walls
- They are found everywhere in nature; many cause disease in people, animals, plants, and insects

#### SIGNALMENT/DESCRIPTION OF PET

##### Species

- Dogs
- Cats

##### Mean Age and Range

- All ages

#### SIGNS/OBSERVED CHANGES IN THE PET

- Simultaneous inflammation of several joints (known as “polyarthritis”)—long-term (chronic) intermittent lameness; reluctance to move; joint pain; joint swelling; and generalized buildup of fluid under the skin of the legs (known as “diffuse limb edema”)
- Fever
- General signs of discomfort and “not feeling well” (known as “malaise”)
- Inflammation of the moist tissues of the eye (known as “conjunctivitis”)—may involve one or both eyes
- Squinting or spasmodic blinking (known as “blepharospasm”); fluid buildup (known as “edema”) of the moist tissue covering of the eyeball, around the cornea (condition known as “chemosis”); reddening of the moist tissues of the eye; overflow of tears (known as “epiphora”); discharge from the eyes, which may be clear or may contain pus (in cats, *M. felis* in dogs, *M. canis*); mild inflammation of the nose (known as “rhinitis”)—sneezing
- Other signs are related to the site of infection—in dogs, pneumonia; genital tract infections (such as inflammation of the prostate, or the inner lining of the uterus), urinary infections of bladder and kidney; inflammation of the colon (known as “colitis”); infertility, abortion, stillbirth or weak newborns; in cats, pneumonia; urinary tract infections; abortions and fetus death, and long-term (chronic) skin abscesses

#### CAUSES

- *Mycoplasma* of dogs—*M. canis*, *M. spumans*, *M. maculosum*, *M. edwardii*, *M. cynos*, *M. molare*, *M. opalescens*, *M. feliminutum*, *M. gateae*, *M. arginini*, *M. bovigentialium*, *Acholeplasma laidlawii*, and ureaplasmas



- *Mycoplasma* of cats—*M. felis*, *M. gateae*, *M. feliminutum*, *M. arginini*, *M. pulmonis*, *M. arthritidis*, *M. gallisepticum*, *Acholeplasma laidlawii*, and ureaplasmas

## RISK FACTORS

- Generalized (systemic) infection associated with an inability to develop a normal immune response (known as “immunodeficiency”); suppression of immune response, as by drugs (known as “immunosuppression”); or cancer; impaired resistance—may allow the organism to cross the protective, mucosal barrier and spread into the body
- Predisposing factors—stresses (such as reproductive problems associated with overcrowded operations) and other factors (such as tumors or stones in the urinary tract)

## Treatment

### HEALTH CARE

- Outpatient

## Medications

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive

- Sensitive to certain antibiotics, such as tetracycline, doxycycline, pradofloxacin, chloramphenicol
- No standardized procedure is available for bacterial culture and susceptibility tests for these infectious agents
- Topical (directly applied to the eye) antibiotic—for inflammation of the moist tissues of the eye (conjunctivitis)
- Other antibiotics that may be used include gentamicin, kanamycin, spectinomycin, spiramycin, tylosin, erythromycin, nitrofurans, and fluoroquinolones

## Follow-Up Care

### PATIENT MONITORING

- Treat for an extended period of time

### PREVENTIONS AND AVOIDANCE

- No vaccines are available to prevent infection
- Organism readily killed by drying, sunshine, and chemical disinfection

### EXPECTED COURSE AND PROGNOSIS

- Prognosis good in pets with normal immune systems and given appropriate antibiotic therapy

## Key Points

- “Mycoplasmosis” is the general name for diseases caused by three groups of infectious agents: *Mycoplasma*, *Ureaplasma*, and *Acholeplasma*; each of these infectious agents is gram-negative bacteria that can live and grow in the full or partial absence of oxygen (known as “facultative anaerobic” bacteria)
- They are found everywhere in nature; many cause disease in people, animals, plants, and insects
- Prognosis good in pets with normal immune systems and given appropriate antibiotic therapy