

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*, *T-mycoplasma* or *Ureaplasma*, and *Acholeplasma*; each of these infectious agents are gram-negative bacteria that can live and grow in the absence of oxygen (known as “anaerobic” bacteria); they lack cell walls
- They are found everywhere in nature; many cause disease in people, animals, plants, and insects

SIGNALMENT/DESCRIPTION of ANIMAL

Species

- Dogs and cats

Mean Age and Range

- All ages

SIGNS/OBSERVED CHANGES in the ANIMAL

- Simultaneous inflammation of several joints (known as “polyarthritis”)—long-term (chronic) intermittent lameness; reluctance to move; joint pain; joint swelling; and generalized build-up 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 build-up (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
- Mild inflammation of the nose (known as “rhinitis”)—sneezing
- Other signs are related to the site of infection—in dogs, may see signs of pneumonia and upper respiratory infections; urinary and genital tract infections (such as inflammation of the prostate, bladder, or the inner lining of the uterus); inflammation of the colon (known as “colitis”) and in cats, may see signs of pneumonia; urinary tract infections; abortions, 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. bovigenitalium*, *Acholeplasma laidlawii*, and ureaplasmas
- *Mycoplasma* of cats—*M. felis*, *M. gateae*, *M. feliminutum*, *M. arginini*, *M. pulmonis*, *M. arthritis*, *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 of the host—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, 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 animals 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*, *T-mycoplasma* or *Ureaplasma*, and *Acholeplasma*; each of these infectious agents are gram-negative bacteria that can live and grow in the absence of oxygen (known as “anaerobic” bacteria)
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