MYCOPLASMOSIS: INFECTIOUS DISEASES CAUSED BY MYCOPLASMA, UREAPLASMA, OR ACOLEPLASMA

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. felimitatum, M. gateae, M. arginini, M. bovigenitalium, Acholeplasma laidlawii, and ureaplasmas
• Mycoplasma of cats—M. felis, M. gateae, M. felimitatum, 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 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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