

Pasteurella pneumotropica

Agent: Gram-negative coccobacillus, family Pasteurellaceae

Host: *P. pneumotropica* has been isolated from mice, rats, gerbils, hamsters, guinea pigs, rabbits, cats and other laboratory animals. Transmission by aerosol, fecal-oral, and contact with infected secretions (including venereal transmission) has been reported.

Transmission: Direct contact and fomites (e.g. dirty bedding, equipment, lab coats, etc.).

Tropisms: Respiratory tract, urogenital tract, enteric and conjunctiva

Clinical disease:

- *Pasteurella pneumotropica* is an opportunistic organism seldom associated with overt clinical disease.
- Upper respiratory infections can manifest as oculonasal discharge, torticollis from otitis media, and/or dyspnea (if mycoplasmal and/or viral respiratory disease are also present).
- Epidemics of conjunctivitis and panophthalmitis have been reported in weanling mice.
- Subcutaneous abscesses, mastitis, metritis and accessory sex gland abscesses have also been observed.
- Reproductive disorders such as abortion and infertility have been reported. Since intrauterine infection of pups can occur, cesarean rederivation may not eliminate the infection.
- Immunodeficient mice are highly susceptible to this pathogen.

Diagnosis: Primarily by culture.

Treatment: Antibiotic therapy has some success.

Research complications: The primary complication stems from clinically severe infection in immunodeficient mice. Organ systems susceptible to infection include dermal, enterohepatic, nervous, respiratory, and reproductive.

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