

Epizootic lymphangitis

(Equine blastomycosis, equine histoplasmosis, pseudoglanders or African glanders)

Definition

It is a chronic pygranulomatous contagious disease of horse, caused by *Histoplasma farciminosum*, characterized clinically by ulcerative, suppurative, spreading dermatitis and lymphangitis; however, other forms including pneumonia or ulcerative conjunctivitis.

Etiology

Histoplasma capsulatum var. *farciminosum*, a fungus. It is yeast like cells with characteristic double wall capsule, large ovoid or lemon shape refractile bodies and replicate by budding.

Mode of transmission:

1-The source of the organisms can be the skin lesions and nasal and ocular exudates of infected animals, or the soil.

2-Biting flies in the genera *Musca* and *Stomoxys* are thought to spread the conjunctival form. Flies may also transmit the skin form mechanically when they feed on lesions and exudates. Ticks might be involved in transmission. The pulmonary form, which is rare, probably develops when an animal inhales the organism

PATHOGENESIS

After gaining entry through wounds, the fungus invades subcutaneous tissue, sets up a local granuloma or ulcer and spreads along the lymphatic vessels. The ocular form of the disease results from inoculation of the organism into the eye, likely by biting flies.

Clinical signs

1- primarily an ulcerating, suppurative, pyogranulomatous dermatitis and, in most cases, lymphangitis.

- 2- An ocular form of the disease is characterized by an ulcerating conjunctivitis and keratitis.
- 3- In the cutaneous form of the disease an (A) indolent ulcer develops at the portal of entry, (B) dermatitis and lymphangitis, (C) evident as corded lymphatics with intermittent nodules, develops. (D) Nodules rupture, discharging a thick creamy pus. (F) Local lymph nodes also enlarge and can rupture. Thickening of the skin in the area and general swelling of the whole limb are common. The lesions are quite painless.
- 4- The disease is chronic, persisting for 3-12 months.

Diagnosis

- 1- Field diagnosis:** signs as cutaneous nodules, lymphangitis and lymphadenitis with postmortem lesions.
- 2- Laboratory diagnosis: Samples:** pus or exudate from lesions. Fungi die quickly in the samples if there is no antibiotic or refrigeration. Samples should be taken on solution contain 500 iu/ml penicillin.
- 3- Laboratory examination:** Direct staining of smear: In a Gram-stained preparation, *H. capsulatum* is a Gram positive, pleomorphic, ovoid to globose structure that is approximately 2–5 μm in diameter.
- 4- Culture of the organism.**
- 5- Serological tests include fluorescent antibody tests, enzyme-linked immunosorbent assays (ELISA) and passive hemagglutination.**

Treatment

- Early cases may be treated with sodium or potassium iodide, but the lesions may later recur.

- Infected premises and equipment must be thoroughly cleaned and disinfected (H. capsulatum can be inactivated by 1% sodium hypochlorite, glutaraldehyde, formaldehyde and phenolic disinfectants).
- Bedding should be burned. Organisms in the soil may survive for long periods.
- Vaccines are not widely available; however, live and inactivated vaccines have been used in some endemic regions.