

SHEEP POX AND GOAT POX



These
diseases are
known to
occur in
Afghanistan.



1. Definition

Sheep pox and goat pox are contagious viral systemic diseases characterized predominantly by skin and pulmonary lesions.

2. Etiology

Sheep pox and goat pox are separate viruses within the Genus *Capripoxvirus*, Family Poxviridae.

3. Transmission

Transmission of disease can occur via aerosol or contact, with inhalation or mucous membrane contact with infected animals.

4. Species affected

Most viruses are species-specific but there are a few strains which will infect both sheep and goats.

5. Clinical signs

Incubation period is 1-2 weeks. Morbidity depends on degree of contact between animals and existing immunity, and so varies between 10 and 100%. First signs of clinical disease may be papules progressing to ulceration on the mucous membranes and skin. Skin lesions are most easily appreciated in areas of poorly haired or poorly wooled skin, such as axilla or inguinal region. Animals are febrile, depressed, and may

have some dyspnea or coughing. Illness may last 1-2 weeks followed by recovery or death. Mortality varies from 20 to 100%.

6. Pathologic findings

The capripoxviruses differ from the other poxviruses in that the lesions are quite deep and ulcerative. Much of the damage occurs in the dermis, so the lesions will feel "thick" and when they ulcerate, can expose the subcutis. These ulcerations can be seen throughout the skin and certain mucous membranes, especially conjunctiva, nares, lips, and trachea. Lung is usually the only internal organ affected, and here the pattern is one of multifocal necrotizing to firm nodules scattered throughout. Occasionally, serosal nodules are present as well - often on intestinal serosa and tunica vaginalis. These nodules only rarely penetrate through to the mucosal surfaces.

7. Diagnosis

Clinical disease is highly characteristic. Confirmation of diagnosis requires laboratory testing - histopathology, PCR, or virus isolation. Differential diagnoses include orf (contagious ecthyma), urticaria, and insect bites.

8. Treatment

There is no treatment for sheep pox or goat pox.

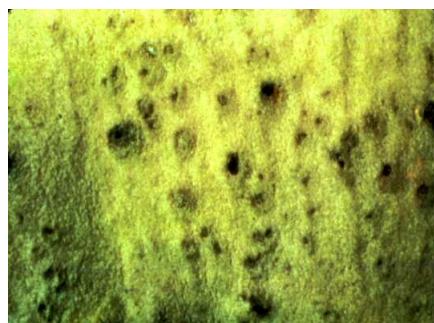
9. Prevention and control

The best prevention is to keep the disease out of flocks and herds by controlling introduction from infected animals. This is difficult in areas where there is extensive mixing of herds and flocks. Good vaccines exist for sheep pox and goat pox and a single vaccine is used for both diseases, providing immunity for at least two years.

(photos, next page)



Developing papules
on the underside of
the tail, sheep pox



Deeply ulcerative
lesions on the skin,
typical of sheep and
goat pox



Disseminated
nodules in the lung,
pneumonia due to
sheep pox