

## 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 woolled 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.

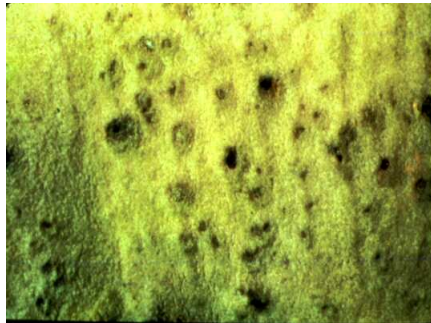
### **9. Prevention and control**

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.

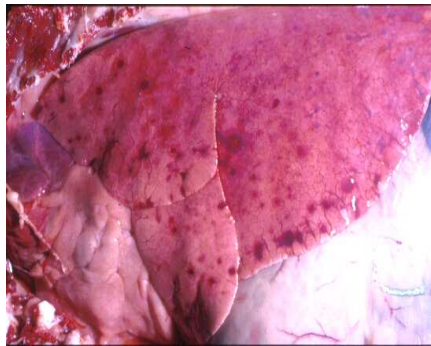
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Developing papules on the underside of the tail, sheep pox



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



Disseminated nodules in the lung, pneumonia due to sheep pox