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AN OVERVIEW OF SHEEP POX AND GOAT POX

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Small ruminants are considered as an important aspect for livelihood sustenance and employment generation opportunity for rural unemployed youths around the world. Farming communities now greatly relies upon the animal husbandry sector in view of prevailing uncertainty to agricultural income owing to frequent natural calamities and climate change. Central Govt. puts due emphasis on small ruminant sector for mitigating malnutrition as well as food security, for which disease management is now given priority which directly influences the body weight gain and economic profit to farmers. Awareness on some economical important disease of small ruminant like Sheep Pox and Goat Pox pertaining to their aetiology, clinical signs, disease pathology and prevention will be helpful to farming communities on disease management, preventing from un-necessary economic loss.

Sheep pox virus (SPV) and goat pox virus (GPV) were once believed to be same virus, but their genetic sequencing made them separate from each other now. It is a serious often fatal disease characterized by skin eruption and generalized pock lesions. It is caused by Capri pox virus under which bovine lumpy skin disease virus (LSDV) also come.

Synonyms

Sheep Pox is otherwise known as-

- Ovine Pox, Laclavelee, *Variola Ovina*
- Goat Pox is otherwise known as- *Variola Capra*

Clinical Signs

- Skin papule having diameter 0.5-1cm may appear on hairless part of body following temperature reaction. Papules are preceded by red colored macules.

- After development of papules, there is conjunctivitis rhinitis, swollen lymph nodes.
- Mucopurulent eye and nasal discharges.
- Necrotic mucus membrane of eye, nose, lips, vulva, prepuce.
- Bronchopneumonia (laboured breathing leads to death).
- Scab found on recovered animal.
- Keratitis.

Macule

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Papule

(1-3 days)

↓

Vesicle

(2-5 days)-contain cream color fluid

↓

Pustule

(9-12 days)-contain thick grey color material

↓

Crust

(On 12th days onwards)-size regresses forming reddish brown crust, usually fall off leaving granulation tissue

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Scab

Post Mortem Lesions

- Lymph nodes become 8 times more size than normal
- Pox lesions found in the membrane of eyes, mouth, nose, pharynx, epiglottis, trachea, nares, muzzle, udder, vulva, prepuce, etc.
- Congestion & focal lesions of lungs
- Enlargement and hemorrhage in mediastinal lymph nodes
- Vasculitis and necrosis of epidermis, dermis.

Prevention & Control

- Antiseptic or antibiotic ointments or lotions may be applied to control secondary bacterial infection and heal the pox wounds.
- Disinfect the fomites, premises
- If culling not possible, isolation of infected herds and sick animals from normal fleck for at least 45days.
- Caprination and ovination are oldest method of immunization
- Caprination (against goat pox)- In which the affected lymph node from the vesicle inoculated beneath the tail or inner surface of ear of a young goat. This will produce a mild form of infection and protect goat from future attack.
- Ovination (against sheep pox)- Lymph of affected sheep inoculated by intradermal injection on ventral surface of tail (oldest method of immunization).

Conclusion

Doubling the farmer's income by 2030 will only be achieved by proper disease management of livestock that to small ruminant for which awareness on different diseases with their etiology, important clinical signs, Pathomorphological changes and preventive measures among all the stakeholders is the need of the hour.

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