Lumpy skin disease

Acute pox viral disease of cattle manifested with sudden appearance of nodules on the skin.

Transmission: Insect vectors by direct and indirect transmission. Seasonal and geographic distribution.

Antemortem findings:
1. Incubation: 4 – 14 days
2. Fluctuating fever
3. Diarrhoea
4. Nasal discharge and salivation
5. The first lesion appear in the perineum
6. Various sized cutaneous nodules (Fig. 52) may occur throughout the body
7. Skin lesions may show scab formation
8. Swelling of superficial lymph nodes and limbs, and lameness
9. Infertility and abortion
10. Secondary infection may lead to joint and tendon inflammation

Postmortem findings:
1. Ulcerative lesions in the mucosa of the respiratory and digestive tract
2. Reddish, haemorrhagic to whitish lesions in the lungs
3. Edema (interlobular) and nodules in the lungs (Fig. 53)
4. Heart lesion (endocardium)
5. Thrombosis of skin vessels followed by cutaneous infarction and sloughing.

Judgement: Carcass of an animal showing mild cutaneous lesions and no fever associated with general signs of infection is conditionally approved pending heat treatment. The affected parts of the carcass and organs are condemned. Carcass of an animal showing, on ante-mortem examination, generalized acute infection accompanied with fever, is condemned.

Differential diagnosis: Allergies, screw-worm myiasis, urticaria, dermatophilosis (streptothricosis), bovine herpes dermophatic infection, cattle grubs, vesicular disease, bovine ephemeral fever, photosensitization, besnoitiosis (elephant skin disease), sweating weakness of calves, bovine farcy and skin form of sporadic bovine lymphomatosis.
Fig. 52: Lumpy skin disease. Various sized cutaneous nodules in a severe case of lumpy skin disease.

Fig. 53: Cut surface of the nodules in the parenchyma of the lung and interlobular edema.