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Popular Article

Canine Distemper

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This is very common disease in canines, synonyms of this disease are canine distemper and hard pad disease, this is an acute febrile infectious and contagious disease of dogs, caused by a pantropic virus belongs to paramyxoviridae family, characteristic symptoms associated with fever, acute catarrhal inflammation of various mucous membranes, pneumonia and some cases skin lesions and involvement of central nervous system. This pantropic virus is anti-genetically related to measles and rinder pest virus. Affected animals are dogs, foxes, jackals, minks, raccoons and other wild canidae, route of infection through ingestion, inhalation of air contaminated virus. All the excretions and secretions contain virus. Incubation period is 5 days, pathogenesis of the disease, the virus is able to infect tissues of all the 3 germinal layers (pantropic) so it is found in the epithelial cells, reticulo endothelial cells and the brain, from the portal of entry the virus is conveyed to the regional lymph node and multiplies, enters the blood and becomes cause viraemic septicemia, then virus settles, proliferates in the epithelium of the skin, alimentary, urinary and biliary tracts, infects the vascular endothelium of the brain, the virus spreads on the brain tissue and proliferates in the nuclei and cytoplasm of the neurons and glial cells. The most common lesions on the skin of abdomen and thigh, vesicles and pustules form due to secondary invasion of pyogenic organisms. The common symptoms of this disease, fever especially biphasic means which persists for 3 to 4 days and then drops, the temperature is normal 11th or 12th day then it again rises of temperature due to secondary bacterial infection that's why it is called biphasic fever, respiratory symptoms – pneumonia, pustules seen in young puppies on the ventral side of abdomen, thighs. Diarrhea, hyperkeratosis of the digital pads so it is called hard pad disease. Eye lesions are keratitis, retinitis, blindness, nervous symptoms are epileptic seizures

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and excessive chewing movements accompanied by salivation (chorea). Lesions found in respiratory tract, catarrhal exudate it turns to purulent is found mucosa of nose, pharynx. Interstitial pneumonia, secondary bacterial invasion purulent broncho pneumonia with alveolar macrophages and mucin. Acute catarrha of gastro intestinal tract, pericardium contain large quantity of fluid, ulceration of the cornea and Panophthalmitis. Hyperemia of the meninges and haemorrhages on pia mater of the brain and spinalcord, non-suppurative encephalomyelitis, necrosis and myelinolysis found the microglia which phagocytize the material and form gitter cells. Intracytoplasmic and intranuclear acidophilic inclusion bodies are noticed in epithelial cells of the mucosa of the nose and pharynx, bronchi, bronchioles, alveolar epithelium, lining the urinary genital passages, Diagnosis – based on symptoms, inclusion bodies, animal inoculation tests.

