Sialodacryoadenitis Virus, Rat Corona Virus

Host species

- rat

Organotropism

- salivary and lacrimal (incl. Harderian) glands, respiratory tract

Clinical disease

- enzootic: asymptomatic or mild conjunctivitis in suckling rats
- epizootic: nasal and ocular discharge, porphyrin staining, corneal ulceration, swelling of the neck, exophthalmus
- SDAV may persisted for at least 6 months in athymic rats (Hajjar et al., 1991; Weir et al., 1990)

Pathology

- acute: coagulation necrosis of the ductual structure of the salivary and lacrimal glands
- reparative phase: squamous metaplasia of ductual and acinar structures of the salivary and lacrimal glands

Morbidity and mortality

- morbidity: high
- mortality: none

Interference with research

Physiology

- interference with studies involving eyes, salivary and lacremal glands or respiratory system (Jacoby, 1986)
- reduced reproduction and growth rates (Utsumi et al., 1980)

- impairing functions such as olfaction and chemoreception for up to two weeks post-texposure (Bihun and Percy, 1995)

Immunology

- reduction of interleukin production in alveolar macrophages (Boschert et al., 1988)
- causes increase of localized graft-vs.-host disease in salivary and lacrimal glands after bone marrow transplant (Rossie et al., 1988)

Infectiology

- increased adherence of Mycoplasma pulmonis in tracheas of infected rats (Schoeb et al., 1993)
- enhances lower respiratory tract disease in rats following Mycoplasma pulmonis infection (Schunk et al., 1995)

Oncology

- reduction of epidermal growth factor in submaxillary salivary gland (Percy et al., 1988)
- causes higher prevalence of anterior pituitary tumors in male F344/NCr rats (Rao et al., 1989)

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