

Theiloviruses (TMEV, RTV)

RNA virus, nonenveloped.

Prevalence

- Common in laboratory colonies, and wild rats and mice

Diagnosis

- Serology or PCR

Disease

- Disease in mice can result from the rare occurrence of viraemia, which occurs most frequently around 6 – 10 weeks of age. In most cases, natural infection with theiloviruses is asymptomatic

Strains

- Several strains have been identified

Screening

- Regular serological testing is recommended

Transmission

- TMEV and RTV are shed through the faecal – oral route

Duration

- In the case of TMEV, animals are persistently infected and virus is shed for approximately two months after infection

Durability

- Environment should be chemically decontaminated with the help of detergents and oxidising agents. Materials in contact with animals should be autoclaved or cold sterilised

Significance

- Rare as a natural infection of contemporary mice and rats. TMEV can interfere with research on the nervous system, immune system and musculoskeletal system. Little is currently known about the effects of RTV on research in rats and consequently an infection should be treated with caution

Control

- Culling and replacing infected animals. Hysterectomy rederivation and embryo transfer

Reading

- Infectious Diseases of Mice and Rats. National Research Council 1991.
- Charles River Laboratories website, www.criver.com