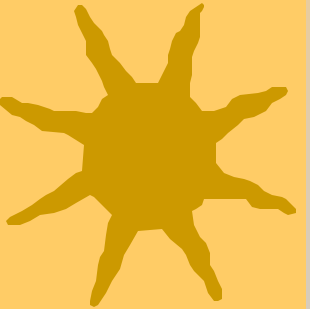




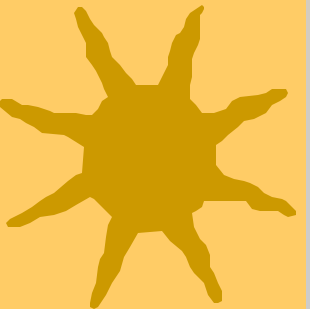
Equine Viral Arteritis



By Ruth D. Fisher

November 30, 2000

For Introduction to Virology

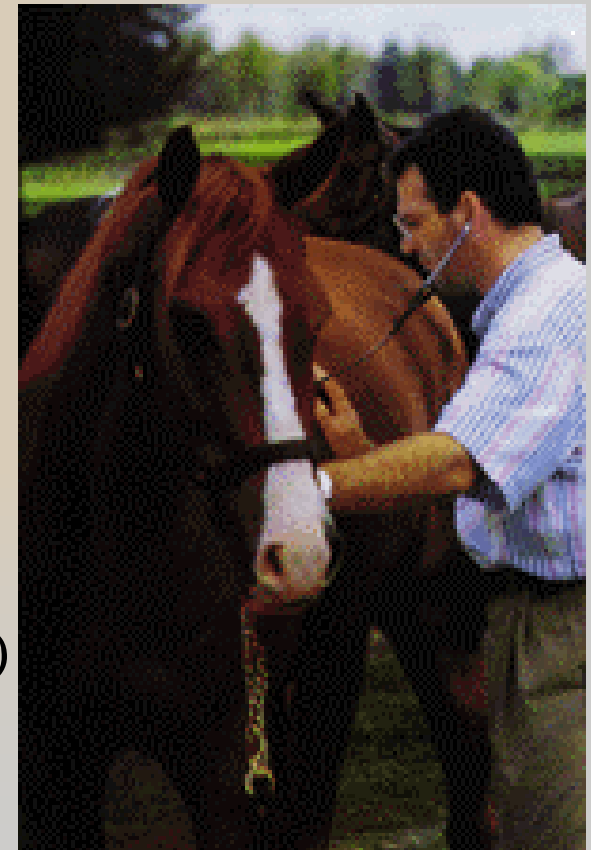




Symptoms of Infection



- ★ Depression
- ★ Edema of Legs
- ★ In Stallions Edema of Sheath and Scrotum
- ★ Pregnant Mares worst symptomatically. Results in abortion of fetus.
- ★ Leukopenia (lowered leukocytes)
- ★ Lacrimation (excess tearing)
- ★ Conjunctivitis
- ★ Palpebral Edema (fluid in eye lids)
- ★ Rhinitis (inflammation of nasal mucous membranes)
- ★ Edema of Legs





Identification and Isolation of EVA



- ★ Attempts to establish virus in laboratory animal or embryonating eggs failed.
- ★ Organ extracts containing EVA did not agglutinate erythrocytes.
- ★ Successful propagation of EVA was achieved in kidney cell cultures.
- ★ Ether sensitive
- ★ Size was determined by ultrafiltration
- ★ Cross –reaction tests proved immunologically unique.





Morphology of EVA



- ★ +ssRNA
- ★ 12.7kb sized genome
- ★ Enveloped Icosahedral nucleocapsid
- ★ 50-100nm in size
- ★ Family – Arteriviridae
- ★ Genus – Arterivirus
- ★ Order – Nidovorales





Treatment of EVA

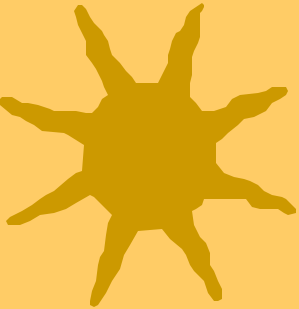


- ★ Once infected little can be done other than the treatment of the clinical symptoms





Transmittance of EVA



- ★ Horizontally transmitted by aerosol.
- ★ Horizontally transmitted venereally via both live and artificial breeding.
- ★ Vertically transmitted from pregnant mare to fetus (fatal).
- ★ Vertically transmitted through congenital infection of foals born to mares infected late in gestation.
- ★ Fomite transmission is also an important source in some outbreaks.



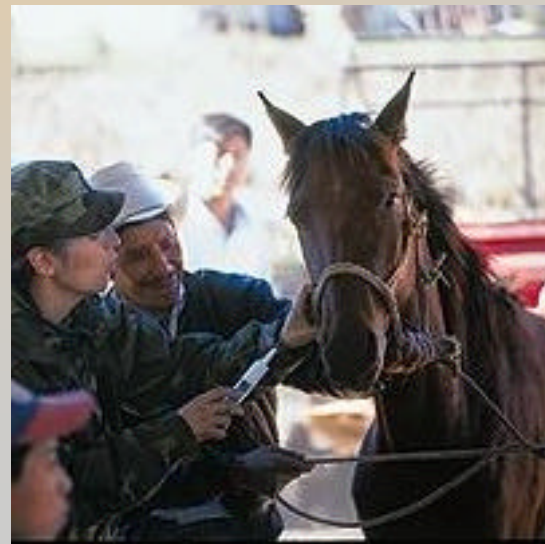


Prevention of EVA



★ Vaccination

- Single series, annually
- Mares can't be vaccinated while in foal.
- Once vaccinated the animal is ineligible for export.





Mr. Ed of Course

