Encephalomyocarditis (EMC)- Virus Disease

<table>
<thead>
<tr>
<th>ANIMAL GROUP AFFECTED</th>
<th>TRANSMISSION</th>
<th>CLINICAL SIGNS</th>
<th>FATAL DISEASE ?</th>
<th>TREATMENT</th>
<th>PREVENTION &amp; CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simiae Prosimiae</td>
<td>Perorally (food, water), diaplacental</td>
<td>Sudden death, tachycardia</td>
<td>Yes – in nonhuman primates</td>
<td>In houses Rodent control in zoos Rodent control, prevention of contacts with infected persons or animals</td>
<td></td>
</tr>
</tbody>
</table>

Fact sheet compiled by Manfred Brack, formerly German Primate Center, Göttingen/Germany. Last update 22.11.2008

Susceptible animal groups
Primarily Suidae, but also Camelidae, rodents, elephants, Hippopotamidae, kangoroos, nonhuman primates.

Causative organism
Encephalomyocarditis-Virus (Picornaviridae, Cardioviruses).

Zoonotic potential
Yes.

Distribution
Worldwide, particularly in Southern USA.

Transmission
Fecal excretion, peroral infection through food or water. In baboons transplacental infection possible.

Incubation period
In experimental infections of rodents 4 – 41 days.

Clinical symptoms
Usually sudden death from congestive cardiac failure. Otherwise sluggishness, anorexia, tachycardia, paralysis, convulsions.

Post mortem findings
Cardiomegaly, Myocarditis, myocardial necrosis, ascites, pleural and pericardial effusions, pulmonary oedema.

Diagnosis
Tissue culture, immunomagnetic separation and one step RT-PCR, Serology: HI-tests.

Material required for laboratory analysis
Altered tissues, faecal samples.

Relevant diagnostic laboratories
The Simian Diagnostic Laboratory at Virus Reference Laboratories, Inc. 7540 Louis Pasteur Road SAN ANTONIO /Tx. 78229 Tel.: (210) 614 – 7350 Fax (210) 614 - 7355

Treatment

Prevention and control in zoos
Rodent Control. Vaccination (B-propiolactone – killed EMC-virus, genetically engineered Mengo-Virus.

Suggested disinfectant for housing facilities

Notification
Guarantees required under EU Legislation

Guarantees required by EAZA Zoos

Measures required under the Animal Disease Surveillance Plan

Measures required for introducing animals from non-approved sources

Measures to be taken in case of disease outbreak or positive laboratory findings

Conditions for restoring disease-free status after an outbreak

Experts who may be consulted

References