MEASLES (Minia)-VIRUS

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<th>ANIMAL GROUP AFFECTED</th>
<th>TRANSMISSION</th>
<th>CLINICAL SIGNS</th>
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<th>TREATMENT</th>
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<td>Naturally: man foreign hosts: Pongidae, Cercopithecidae, Cebidae</td>
<td>Aerogenously</td>
<td>In Cercopithecidae fever, coryza, conjunctivitis, bronchitis, occasionally rash. In Cebidae respiratory symptoms, death</td>
<td>Yes – in Callitrichidae up to 100 %, in macaques 5%</td>
<td></td>
<td>In houses</td>
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Cave: Measles suppress tuberculin tests!

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Susceptible animal groups
Pan troglodytes, Gorilla gorilla, Macaca mulatta, M. radiata, M. fuscata, M. fascicularis, M. tonkeana, Colobus guereza, Presbytis cristatus, Aotus trivirgatus, Saimiri sciureus, Callithrix jacchus, Saguinus spp.

Causative organism
Measles virus (Paramyxoviridae – Morbilliviruses).

Zoonotic potential
So far – not.

Distribution
World – wide.

Transmission
Aerogenously. Once a monkey population becomes infected, measles may spread bushfire- like.

Incubation period
In man: approximately 14 days; in nonhuman primates approximately 7 days.

Clinical symptoms
Mostly mild, influenza – like with fever, coryza, conjunctivitis, bronchitis and occasionally rash. In macaques the death rate is approximately 5% with death following anorexia, dermatitis, diarrhoea, and dehydration. In Callitrichidae respiratory symptoms prevail with up to 100 % fatality rates, in other cases hemorrhagic diarrhoea, hypothermia, cardiovascular collapse, death. Edema of the periorbital region.

Post mortem findings
In fatal cases of nonhuman primates proliferative interstitial giant cellular pneumonia, rarely Koplik – spots in the oral mucous membranes.

Diagnosis
Virology: tissue culture; Serology: HIH –, CF, haemolysis – inhibition-, neutralization – tests.

Material required for laboratory analysis
Lesions, whole blood or serum.

Relevant diagnostic laboratories
Local medical laboratories

Treatment
Prevention and control in zoos
Proper quarantine procedures, avoidance of contacts between young children and nonhuman primates.
Measles vaccination, beginning at 6 months of age in macaques and at 15 months in the great apes. For vaccination either measles vaccine for human use (Attenuvax) or a combined canine distemper – measles
vaccine (Vanguard) may be used with Vanguard vaccine resulting in higher neutralisation antibody titers.

**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**

Frau Dr. A. Tischer, NRZ, Berlin

**References**