MONKEYPOX

ANIMAL GROUP AFFECTED	TRANS-MISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
Nonhuman primates and man, prairie dogs, squirrels	Between nonhuman primates aerogenously, biting, contact. From monkey to man by contact or through vectors (prairie dogs in the USA !)	In man smallpox-like, in nonhuman primates cutaneous eruptions, mucocutaneous vesicles,cough.	Yes –in man 14% fatality rate High fatality/abortion rate in great apes and squirrel monkeys	Only secondary infections	*In houses* Quarantine *in zoos* Quarantine

Fact sheet compiled by	**Last update**
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Susceptible animal groups
All nonhuman primates and man. Reservoir hosts : *Cercopithecus ascanius, C.nigriviridis, C.petaurista, Colobus badius,* rodents (*Cricetomys sp*.), prairie dogs *(Cynomys* sp.)Squirrels (*Heliosciurus rufobrachium, Funisciurus anerythrus)*

Causative organism
Monkeypox-virus (Chordopoxviruses, Orthopoxvirus) . Monkeypoxvirus of West African origin is less virulent in man and cynomolgus monkeys than monkeypoxvirus from the Congo basin .

Zoonotic potential
Yes

Distribution
African rain forest, human cases in Congo (Democratic Republic), Zaire, West- and Central Africa.

Transmission
Between monkeys probably aerogenously, by biting or other contacts. From monkeys to man most likely by contact during processing of monkey- meat for food. Man-man transmission proven in the Democratic Republic of Congo (Congo basin virus is man-man transmissible on contrast to West African virus). In the USA transmission of West African monkeypoxvirus to man via prairie dogs (*Cynomys sp.)* and rabbit (reservoir hosts predominantly rodents).

Incubation period
In man: 7 – 21 days.

Clinical symptoms
In Cercopithecidae mostly benign, self-limiting cutaneous eruptions, in the great apes and squirrel monkeys also mucocutaneous (mouth, face, soles) vesicles, itching erythema, cough. High fatality and abortion rate in great apes and squirrel monkeys.
In man: febrile rash, malaise, headache, occasionally encephalopathy.

Post mortem findings
Isolated papules especially in the facial region , followed by typical pox lesions (Guarneri bodies!). In the great apes and squirrel monkeys haemorrhagic pox lesions and pneumonia, in the squirrel monkeys metritis. In prairie dogs fibrinonecrotic bronchopneumonia, multifocal haemorrhagic-necrotic lesions in numoerous organs

Diagnosis
In histopathology Guarneri-bodies ,electron microscopy (vesicular fluid superior to swabs !) Virology: tissue culture. DNA restriction pattern for distinction monkeypox from smallpox, cowpox etc. Serology: CFI-tests, immunoprecipitation.

Material required for laboratory analysis
Pox lesions, vesicular fluid (native or dried glass slides)

Relevant diagnostic laboratories

1. Virus Reference Laboratories, Inc.
   7540 Louis Pasteur Road
   SAN ANTONIO,Tx. 78229
   Phone: (210) 614 – 7350
   Fax: (210) 614- -7355

2. Konsiliarlaboratorium für Poxviren
   Institut fü+r Medizinische Mikrobiologie, Infektionms- und Seuchenmedizin
   Ludwigs-Maximilian-Universität
   MÜNCHEN
   Tel.: 089 2180 2528
   " " 2028
   Fax: " " 5905
   e-mail: sandra.essbauer@micro.vetmed.uni-muenchen.de

3. Konsiliarlaboratorium für Poxviren,
   Robert Koch-Institut
   Nordufer 20
   13353 BERLIN
   Tel.: 01888.754-2310
   Fax: 01888.754-2605
   E-mail: PauliG@rki.de

4. CDC, Atlanta, Georgia /USA.

Treatment

Cidofovir, vaccinia immune globulin

Prevention and control in zoos

Suggested disinfectant for housing facilities

Notification

In Germany: State Veterinarian according to § 1 "Verordnung über anzeigepflichtige Tierseuchen, 3.Nov.2004"

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

1. Prof.Dr. B. Fleischer, Bernhard- Nocht –Institut, Hamburg,
2. Prof.Dr. H. Schmitz, " " " "
3. Prof.Dr. Kaaden, Konsiliarlaboratorium, München

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