

## LEPROSY

ANIMAL GROUP AFFECTED	TRANSMISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
<i>Pan troglodytes</i> , <i>Cercocebustys</i> , <i>Macaca fascicularis</i>	Aerogenously, contact	Crusted maculopapular rash, nodular lesions, paralytic deformities of hand and feet	No	Multidrug therapy: Rifampicin- Dapson- Clofazimin (human infections!)	<i>In houses</i> None  <i>in zoos</i> none

<b>Fact sheet compiled by</b> Manfred Brack, formerly German Primate Center, Göttingen / Germany.	<b>Last update</b> November 2003
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<b>Susceptible animal groups</b> <i>Pan troglodytes</i> , <i>Cercocebus atys</i> , <i>Macaca fascicularis</i> .	
<b>Causative organism</b> <i>Mycobacterium leprae</i> .	
<b>Zoonotic potential</b> Yes.	
<b>Distribution</b> Asia, Africa, Latin America.	
<b>Transmission</b> Aerogenously via nasal excretions, probably also contact.	
<b>Incubation period</b> Varying from 10 days to 25 months in experimentally infected monkeys and from 9 months to 20 years in man.	
<b>Clinical symptoms</b> Crusted maculopapular rash (trunk, limbs), followed by nodular lesions on lips, nostrils, nasal septum, eyebrows, ears, carpus, forearms, scrotum (cooler parts of the body!), sometimes accompanied by ulcerations and depigmentations. Paralytic deformities of hands and feet .	
<b>Post mortem findings</b> In natural infections of nonhuman primates only the lepromatous form (Type 2: cell-mediated anergy with heavy bacterial load) resulted. Diffuse dermal infiltration by pale, foamy histiocytes, lymphocytes, plasma cells, and neutrophils with loss of dermal collagen, dermal papillae and rete pegs. In the lepromatous form numerous acid fast bacteria are crowded within the histiocytes. In the peripheral nervous system focal histiocytic invasion of the perineurium and polyneuritis were reported.	
<b>Diagnosis</b> <i>M. leprae</i> does not grow <i>in vitro</i> , diagnosis therefore depends entirely on indirect methods: Immunoperoxidase labeled antibodies against <i>M. leprae</i> proteins or carbohydrates, Fite-Faraco- staining of acid fast bacteria within histiocytes of the lesions and in the nasal mucus, cutaneous lepromin- tests (in nonhuman primates higher concentrations of the antigen required!), ELISA- tests using specific phenolic glycolipid I antigen.	
<b>Material required for laboratory analysis</b> Nasal secretions, tissues from the lesions.	
<b>Relevant diagnostic laboratories</b> 1. Nationales Referenzzentrum für tropische Infektionserreger am Bernhard- Nocht- Institut für Tropenmedizin Robert –Koch-Str. 17 D 20359 Hamburg, Germany Phone: 040 – 42818-401 Fax: “ “ “ e-mail :MZD@bni-hamburg.de	



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**Treatment****Prevention and control in zoos****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**

1. Prof. Dr. B. Fleischer, NRZ, Hamburg,
2. Prof. Dr. H. Schmitz, “ “

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