



SIMIAN HAEMORRHAGIC FEVER (SHF)

ANIMAL GROUP AFFECTED	TRANSMISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
Natural: <i>Erythrocebus patas</i> , <i>Cercopithecus aethiops</i> ,(?) <i>Papio</i> sp.(?) Foreign hosts: Macaques	Probably contact	In natural hosts: None, in macaques: fever, anorexia, depression, facial edema, epistaxis, skin haemorrhages	Yes, in macaques highly fatal	None	<i>In houses</i> <i>in zoos</i> Separation of African from Asian monkeys.

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Susceptible animal groups Macaques.	
Causative organism SHF-Virus (Togaviridae, Fam.: Arteriviridae, Order Nidovirales)	
Zoonotic potential None.	
Distribution Naturally in Africa, in captivity World-wide.	
Transmission Probably via contact or aerogenously.	
Incubation period 3 – 9 days.	
Clinical symptoms In natural hosts asymptomatic, in macaques: fever, anorexia, depression, facial edema, ocular retrobulbar haemorrhages, epistaxis, skin-haemorrhages, cyanosis, melena, adipsia, dehydration, elevated LDH-levels, intravascular coagulation, thrombocytopenia.	
Post mortem findings In natural hosts: none, in macaques: gross lesions may be absent, in final stages petechial haemorrhages on mucosal and serosal surfaces, haemorrhages and necrosis in proximal duodenum, splenic follicles, splenomegaly, vasculitis, intravascular fibrin deposition, occasionally lymphohistiocytic meningoencephalitis.	
Diagnosis ELISA, indirect immunofluorescence assays, virus isolation.	
Material required for laboratory analysis Blood, altered organs.	
Relevant diagnostic laboratories 1. CDC, Atlanta/ Georgia, USA. 2. Virus Reference Laboratories, Inc. 7540 Louis Pasteur Road SAN ANTONIO, Tx / USA Phone : (210) 614 – 7350 Fax : (210) 614 - 7355	
Treatment None.	
Prevention and control in zoos Proper quarantine of newly imported patas monkeys and other African monkey species, separation from	



macaques.
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 <ol style="list-style-type: none">1. Cavanagh, D. 1997. Nidovirales: A new order comprising Coronaviridae and Arteriviridae. <i>Arch. Virol.</i> 142: 629-633.2. Espana, C. 1971. Review of some outbreaks of viral disease in captive nonhuman primates. <i>Lab. Anim. Sci.</i> 21: 1023-1031.3. Godeny, E. K. 2002. Enzyme-linked immunosorbent assay for detection of antibodies against simian hemorrhagic fever virus. <i>Comp. Med.</i> 52: 229-232.4. Gravell, M., W. T. London, M. Leon, A. E. Palmer, and R. S. Hamilton. 1986. Elimination of persistent hemorrhagic fever (SHF) virus infection in patas monkeys. <i>Proc. Soc. Exp. Biol. Med.</i> 181: 219- 225.5. London, W. T. 1973. An outbreak of simian hemorrhagic fever. <i>Primate Zoonoses Surv. Rep.</i> 1973: 5- 6.6. London, W. T. 1977. Epizootiology, transmission and approach to prevention of fatal simian hemorrhagic fever in rhesus monkeys. <i>Nature</i> 268: 344- 345.7. Palmer, A. E., A. M. Allen, N. M. Tauraso, and A. Shelokov. 1968. Simian hemorrhagic fever. I. Clinical and epizootic aspects of an outbreak among quarantined monkeys. <i>Am. J. Trop. Med. Hyg.</i> 17: 404-412.8. Renquist, D. 1990. Outbreak of simian hemorrhagic fever. <i>J. Med. Primatol.</i> 19: 77-80.9. Tribe, G. W. 1977. Simian haemorrhagic fever in perspective. <i>Primate Supply</i> 2: 40-41.10. Zack, P. M. 1993. Simian hemorrhagic fever. <i>In: Jones, T. C., U. Mohr, and R. D. Hunt (eds). Nonhuman Primates I.</i> Springer, Berlin, Germany. Pp. 118-131.