



GRAY PATCH DISEASE

ANIMAL GROUP AFFECTED	TRANSMISSION	CLINICAL SIGNS	FATAL DISEASE?	TREATMENT	PREVENTION & CONTROL
Sea turtles	Unknown. The disease can be transmitted experimentally by scarification of the skin.	Necrotizing dermatitis, circular papular skin lesions		Control of secondary bacterial infections	<p><i>In houses</i> Strict hygiene and quarantine procedures for a minimum of 3 months</p> <p><i>in zoos</i> Strict hygiene and quarantine procedures for a minimum of 3 months</p>

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<p>Susceptible animal groups Green turtles (<i>Chelonia mydas</i>). Aquaculture reared, 2- to 3-month-old green sea turtles (<i>Chelonia mydas</i>) appear to be most commonly affected.</p>	
<p>Causative organism Probably a herpesvirus. The original samples did not have any further identification beyond visualization of herpesvirus-like particles on electron microscopy, and there are no original samples available for further diagnostics.</p>	
<p>Zoonotic potential No.</p>	
<p>Distribution Worldwide.</p>	
<p>Transmission The route of transmission is unknown. In an experimental study, the disease was transmitted by scarification of the skin.</p>	
<p>Incubation period Depends on water temperature. Occurs in young green turtles between 56 and 90 days after hatching.</p>	
<p>Clinical symptoms Necrotizing dermatitis of posthatching green turtles raised in mariculture. Epizootics of small, circular papular skin lesions that coalesced into patches were described in young sea turtles. Stressful environmental conditions such as overcrowding and higher temperatures seemed to enhance the onset and severity of lesions.</p>	
<p>Post mortem findings Papular and necrotizing skin lesions with hyperkeratosis and acanthosis of the epidermis. Amphophilic intranuclear inclusions visible in upper epidermis.</p>	
<p>Diagnosis Based on typical clinical progression, histopathologic evaluation of lesions, and electron microscopic detection of viral particles.</p>	
<p>Material required for laboratory analysis Skin from lesions and surrounding area.</p>	
<p>Relevant diagnostic laboratories Contact pathologists with experience with reptiles.</p>	
<p>Treatment Reduce water temperature to 25 °C in summer months. Reduce stress to animals. Lower population density.</p>	

**Prevention and control in zoos**

- Strict hygiene and quarantine procedures for a minimum of 3 months.
- If an outbreak of this syndrome occurs, affected turtles should be kept isolated from clinically healthy turtles. Also tanks should have separate water sources.
- Preventive measures to reduce stress.

Herpesviruses can cause latent infections, so that any infected animals should be considered life-long carriers.

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****Contacts for further information****References**

1. Haines, H., and W. C. Kleese. 1977. Effect of water temperature on a herpesvirus infection of sea turtles. *Infect. Immun.* 15: 756-759.
2. Jacobson, E. R. 2007. Viruses and viral diseases of reptiles. *In: Infectious Diseases and Pathology of Reptiles*, E. R. Jacobson (ed.). CRC Press, Taylor and Francis Group, Boca Raton, USA. Pp. 395-460.
3. Rebell, G., A. Rywlin, and H. Haines. 1975. A herpesvirus-type agent associated with skin lesions of green sea turtles in aquaculture. *Am. J. Vet. Res.* 36: 1221-1224.