March 30, 2011

Herpes B Virus Infection Fact Sheet

1. **What is herpes B virus?**

   a. Herpes B virus is caused by Macacine herpesvirus 1 (formerly Cercopithecine herpesvirus 1[CHV-1]), an alphaherpesvirus closely related to herpes simplex virus. Herpes B virus is also commonly referred to as herpes B, monkey B virus, herpesvirus simiae, and herpesvirus. The virus is an infectious agent that is commonly found in populations of macaque monkeys, including rhesus macaques, pig-tailed macaques, and cynomolgus monkeys. Monkeys infected with this virus usually have no symptoms or only mild symptoms similar to that of herpes simplex virus 1 (HSV types 1 or 2) in humans. These symptoms can include oral or genital lesions, but virus can be shed in the absence of lesions as well.

   b. After initial infection, the B virus can remain dormant in the spinal nerves of those infected. Herpes B virus is transmitted when virus is shed from herpetic lesions or affected mucosal sites. How often or how long the host monkeys shed the virus is not fully understood.

   c. There have only been 31 documented human infections by B virus. In humans, infections from B virus are often fatal (67%) and usually result from animal bites, scratches, or from percutaneous inoculation with infectious materials.

2. **Who is at the greatest risk of acquiring this infection? -** Persons at greatest risk for herpes B virus infection include veterinarians, laboratory workers, and others who have close contact with Old World macaques, or monkey cell cultures.

3. **How does human infection occur? –** Infections with B virus usually result from animal bites, scratches, exposures to the tissues or secretions of macaques, or by mucosal contact with monkey body fluid or tissue. Human infection can also result from indirect contact via, for example, a needle stick injury from a contaminated needle or from other percutaneous inoculation with infectious materials.

4. **What are the symptoms of human herpes B virus infection? –** Symptoms typically appear three days to one month following exposure. Symptoms include vesicular (pimple or pus-filled) skin lesions at or near the exposure site; aching; chills and other flu-like symptoms; persistent fever; nausea; lethargy; chest pain and difficult breathing; and neurological symptoms such as itching or tingling at or near the exposure site, numbness, dizziness, double vision, difficulty swallowing and confusion. Illness rapidly evolves to coma, respiratory failure, and usually death.

5. **How is herpes B virus diagnosed? -** The National B Virus Resource Laboratory provides diagnostic tests for both nonhuman primates and humans suspected to be infected with B virus. Emergency information is offered 24 hours a day, 7 days a week. They also offer

diagnostic testing services for injury- (exposure) related human and nonhuman primate samples as well as for routine screening. Contact information is listed below:

Herpes B Virus Resource Laboratory
Viral Immunology Center
Georgia State University
P.O. Box 4118
Atlanta, Georgia 30302-4118
404-413-6550

6. **How is herpes B virus treated?** – According to the CDC, the decision about whether to take anti-retroviral therapy or not should take into account a variety of criteria including the following: Type and physical condition of the implicated animal, thoroughness and timeliness of wound cleansing procedure, nature of the wound, and exposure to materials that have come into contact with the macaques. Furthermore the decision to treat should be made in accordance with direction of a physician, with liberal consideration of the patient's wishes and concerns. Recommendations for treatment of exposure to B virus can be found by clicking on the following hyperlink:

   Recommendations for Prevention Therapy for Exposure to B Virus (Cercopithecine Herpesvirus1)

7. **Can herpes B virus be transmitted person-to-person?** – Yes, there has been one documented case of human-to-human transmission via bodily fluids.

8. **How can B virus be prevented? –** Minimize human exposure to monkey bites, scratches, splashes, or needle-stick injuries. In some instances, antiviral preventive therapy may be indicated if a substantial wound has occurred from a known positive non-human primate.

9. **For more information about herpes B Virus Infection:**
   http://www.cdc.gov/herpesbvirus/index.html

   This fact sheet provides general information. Please contact your physician and/or veterinarian for specific clinical information related to you or your animal.