

Sexual transmission of insect-borne virus

April 7 2011, by Deborah Braconnier



Maculopapular rash on patient 3 infected with Zika virus, Colorado, USA. Credit: see ref. below.

(PhysOrg.com) -- Little did Brian Foy know that when he came home from a scientific research trip and had sex with his wife that that sexual act would create virological history. A study just released in *Emerging Infectious Diseases* presents the case of probable sexual transmission of the Zika virus.

Brian Foy, a U.S. vector biologist from Colorado State University and a Ph.D. student Kevin Kobylinski had been in Senegal conducting research on <u>Malaria</u>. During the course of their research they were collecting <u>mosquitoes</u> in the village of Bandafassi. During their time there, they also endured many mosquito bites themselves.



They returned to the states on August 24, 2008 and within five days of their return became ill. They experienced symptoms of rash, <u>fatigue</u>, headaches, and swollen joints. Foy also experienced painful urination and blood in his semen.

On September 3, 2008, Joy Chilson Foy, Brian's wife, also became sick and experienced many of the same symptoms however none of their four children were ill.

The scientists believed they had become infected by a mosquito bite they had received on the trip, but were stumped as to what Foy's wife had. Blood samples were taken by several laboratories, including the CDC, but nothing showed conclusively.

A year later, Kobylinski met with medical entomologist Andrew Haddow while on another trip to Senegal. Kobylinski shared the story to Haddow, who immediately believed what he was describing was the <u>Zika</u> <u>virus</u>. Blood samples from the three were sent to virologist Robert Tesh and the confirmation was made.

The Zika <u>virus</u> belongs to the Flaviviridae virus family and is similar to dengue, yellow fever, and West Nile. It is transmitted by three Aedes mosquito species, all of which are common in Senegal, but not in Colorado where Foy's wife was.

Though there is not confirmed evidence that sexual contact between Foy and his wife was the method of infection for his wife, there is no other explanation. This would be the first time a documented case of <u>sexual</u> <u>transmission</u> of an insect-borne pathogen has been documented.

More information: <u>www.cdc.gov/eid/content/17/5/pdfs/10-1939.pdf</u> via <u>Science</u>



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Citation: Sexual transmission of insect-borne virus (2011, April 7) retrieved 4 May 2024 from <u>https://medicalxpress.com/news/2011-04-sexual-transmission-insect-born-virus.html</u>

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