

2013-03-24-009 FW: Australian bat lyssavirus - Australia (02): (QL) human fatality

To: (06) Virology, general; (07) Zoonoses, general;

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AUSTRALIAN BAT LYSSAVIRUS - AUSTRALIA (02): (QUEENSLAND) HUMAN FATALITY

A ProMED-mail post

[1]

Date: Thu 21 Mar 2013

Source: France 24 International News, Agence France Presse [edited]

<<http://www.france24.com/en/20130321-experts-sound-global-alert-over-deadly-bat-virus>>

Experts sound global alert over deadly bat virus

Experts on infectious diseases Thursday [21 Mar 2013] warned people to stay away from bats worldwide after the recent death of an 8-year-old boy bitten in Australia. The boy last month became the 3rd person in the country to die of Australian bat lyssavirus (ABLV), for which there is no effective treatment. Doctors Joshua Francis and Clare Nourse of Brisbane's Mater Children's Hospital warned an infectious diseases conference that human-to-human transmission of the virus may be possible.

Francis said the boy was bitten during a family holiday to Queensland in December 2012, but did not tell his parents. 3 weeks later he began to suffer convulsions, abdominal pain and fever, followed by progressive brain problems. Doctors frantically tried to establish what was wrong and on day 10 of his admission the lyssavirus was detected. He fell into a coma and died on 22 Feb 2013.

Francis told the Canberra conference the warning to avoid bats around the world was issued not just because of the danger posed by the animals themselves, but due to the risk, however remote, that the virus could be spread between humans. "Human to human transmission of lyssaviruses has not been well documented, but it is theoretically possible," he said. International guidelines recommend post-exposure prophylaxis for anyone who has been exposed to the saliva or neural tissue of an infected person through broken skin or mucous membrane contact.

"ABLV [infection] has proved fatal in all cases reported to date.

There is a need for increased public awareness of the risk associated with bat contact," Francis said.

"In short, people should stay away from bats." ABLV was 1st identified in Australian bats and flying foxes and is common in both, though human infection is extremely rare.

2 adult cases were confirmed in 1996 and 1998. One was a woman bitten by a flying fox after wrestling it off a child, the other a carer who looked after the animals.

Other lyssavirus strains circulate in bats in the United States and Europe and the experts said their warning applies to wherever bat or flying fox populations exist.

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Communicated by:

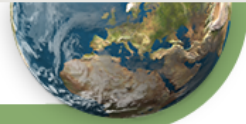
ProMED-mail Rapporteur Kunihiko Iizuka

[2]

Date: Fri 22 Mar 2013

Source: Brisbane Times [edited]

<<http://www.brisbanetimes.com.au/environment/animals/boys-tragic-death-serves-as-warning-to-others-20130321-2giom.html>>



Boy's tragic death serves as warning to others

A Queensland boy has become Australia's 3rd victim of the bat-borne lyssavirus. The boy suffered convulsions, severe abdominal pain and slipped in and out of consciousness. But tests of his brain and spinal fluid were normal at 1st, baffling his doctors.

In one human case, the time period from the exposure to the bat to the onset of the illness was more than 2 years. The little Queensland boy was intubated and ventilated in hospital. 10 days later, medical specialists detected the worst. In the 8-year-old boy's system doctors discovered levels of [Australian bat] lyssavirus, but it was too late for treatment. The boy's neurological condition deteriorated, and he eventually fell into a coma. He died on 22 Feb 2013. His death was the 3rd in Australia to result from the country's deadliest bat-borne disease -- Australian bat lyssavirus [infection].

Not realising the risk, the adventurous 8-year-old from north Queensland, whose name has not been made public, failed to tell his parents he had been bitten by a bat while holidaying in the Whitsundays [Islands located in the heart of the Great Barrier Reef, on the tropical coast of Queensland, Australia - Mod.CP]. The visit to the Whitsundays was 3 weeks earlier. His grieving family agreed for the details of his treatment to be revealed for the 1st time by the Australasian Society for Infectious Diseases to serve as a warning to others.

Since it was 1st discovered in a flying fox near Ballina, NSW, in 1994, [Australian bat] lyssavirus -- a close relative of rabies virus

-- has killed the only 3 Queenslanders to have ever contracted it.

Unlike the world's more prevalent killers including HIV/AIDS and Hepatitis B and C, which can be effectively mitigated with medication, diagnosis of the bat-borne disease is invariably followed by a hasty death.

In November 1996 a Queensland woman, who had recently become a bat handler, became ill. She initially suffered numbness and weakness in her arm, but it progressed to coma and death. 2 years later a Mackay woman was diagnosed with the disease after she was bitten by a bat.

She later died. Their rapid deterioration was identical to that of rabies victims overseas. The victims suffered influenza-like symptoms before slipping into a coma from which they did not regain consciousness.

Dr Joshua Francis, who treated the 8-year-old boy at the Mater Children's Hospital, warned victims might not develop symptoms for years. "In one human case, the time period from the exposure to the bat to the onset of the illness was more than 2 years," he said. "If people have had a bite or a scratch from a bat any time in the past, it's still worth presenting for medical attention. It's that window period, before the disease commences that vaccines can be effective."

The virus was found in the saliva of infected animals, Dr Francis said. "There is a need for increased public awareness of the risk associated with bat contact," he said. "In short, people should stay away from bats. For anyone exposed, post-exposure prophylaxis is effective at preventing progression to disease, and should be considered as soon as possible in all cases that constitute a potentially significant exposure."

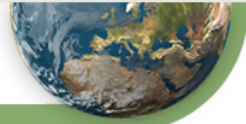
Yet, there's no reason for people to run screaming from the animals.

"Absolutely, people should avoid contact with bats, but I don't think there's reason to be terrified of them," Dr Francis said. "The approach should always be that if someone has had a bite or a scratch from a bat they should seek medical attention. They can receive a prophylaxis that can prevent the onset of the virus."

[Byline: Marissa Calligeros]

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Communicated by:
ProMED-mail Rapporteur Kunihiko Iizuka



[Australian bat lyssavirus (ABLV) is classified as a distinct species in the genus *Lyssavirus* of the family *Rhabdoviridae*. It is closely related to rabies virus, but restricted to bats. It is antigenically similar enough to be neutralised by standard anti-rabies virus serum, and standard rabies vaccine virus which can be used for post-exposure prophylaxis if administered before the onset of symptoms of disease.

However in the present case in view of the lapse of time between exposure and appearance of symptoms it is unlikely that post-exposure prophylaxis could have been successful.

According to Queensland Health

(<http://access.health.qld.gov.au/hid/InfectionsandParasites/ViralInfections/australianBatLyssavirus_fs.asp>):

ABLV is a virus that can be transmitted from bats to humans, causing serious illness. The virus was first identified in 1996 and has been found in 4 species of flying foxes/fruit bats and one species of insect-eating microbat. Evidence of previous infection has been found in blood tests from a number of other bat species. It is therefore assumed that any bat in Australia could potentially carry the virus.

There is no evidence of human-to-human transmission, but the close similarity of ABLV to rabies virus and other members of the genus *Lyssavirus* indicates that the possibility cannot be discounted and accordingly appropriate precaution should be maintained. Anyone who has been potentially exposed to ABLV, and has never received pre-exposure vaccination, will require an injection of rabies immunoglobulin and a series of 4 rabies vaccine injections over one month (on days zero, 3, 7, and 14). These injections are recommended for anyone who has been exposed to ABLV, regardless of how long ago the exposure occurred. People with a weakened immune system will require a further (5th) dose of vaccine given at day 28 and follow up blood tests to confirm their immunity. Post-exposure vaccination may be delayed for up to 48 hours if the bat is available for testing, without placing other people at risk of exposure. Nobody should handle any species of bat without adequate personal protection.

A map of Australia, showing the location of Queensland, can be accessed at:
<<http://mapsof.net/map/australia-states-rs01#.UR6fsaXEIac>>. - Mod.CP]

[see also:

Australian bat lyssavirus - Australia: (QL) 3rd victim

20130215.1544648

2011

Australian bat lyssavirus - Australia (02): (VI) flying fox

20110714.2130

Australian bat lyssavirus - Australia: (VI) flying fox 20110526.1601

2010

Australian bat lyssavirus - Australia: (QL) flying fox, human exp., corr. 20100107.0074 Australian bat lyssavirus - Australia: (QL) flying fox, human exp

20100106.0061

2009

Australian bat lyssavirus, human, susp. - Australia (NSW)

20090320.1122

Australian bat lyssavirus, flying fox - Australia (QLD) 20041111.3050]
