

Rabies: A little appreciated risk for travellers

Consider this scenario. You take a phone call from a relative who says a patient of yours phoned from Hong Kong, concerned they had been bitten by a dog while on holiday and wanted to know if they should do anything before returning to Perth in three days. What would you have advised?

Understanding rabies virus infection

Rabies virus travels through the peripheral nervous system to the brain and ultimately causes death. It competes with Ebola as one of the most lethal infections on the planet. There is no effective treatment once symptoms develop; however there is the opportunity to vaccinate exposed individuals in the time between being bitten and the virus infiltrating a nerve ending.

The 'window of opportunity' to vaccinate in this context is variable – days to weeks usually, sometimes months and on the rare occasion years. It is never too late to vaccinate after a potential exposure, providing symptoms have not already begun. Once CNS symptoms develop, vaccination is useless and the disease is always fatal.

The encephalomyelitis begins with headache, fever and malaise, followed by excitability, hallucinations and in some cases fear of water (hydrophobia) associated with spasm of the swallowing muscles. Delirium, convulsions and death follow a few days after onset.

What are the travel risks?

Rabies is endemic in most countries of the world (see map) and Australians visiting these countries tend to be less aware of the risk than local citizens. India alone has 30,000 deaths from rabies annually. In China, it is now the leading cause of death from any infectious disease.

Dogs, monkeys or cats are the animals most often implicated, but any mammal can potentially inflict the disease. We had a traveller from Namibia present for attention following a Meerkat bite on one occasion! The animal will also succumb to the disease, but will not always be frankly rabid at the time the bite is inflicted.

Options for the traveller

Raising awareness of the risk is the main task of the travel consultation. "Don't pat or feed anything with teeth" is a very precise way of getting the message across.

Wound management is important for any animal bite, scratch, or even lick of an open wound. The first step is to clean the wound with soap and water – soap kills rabies virus. Apply an antiseptic such as Betadine, then try to contact the travel insurer to find the nearest reliable medical attention. Treatment entails injection of the wound with immunoglobulin, whilst simultaneously beginning a course of five vaccinations over the course of a month.

Pre-exposure vaccination is an option for certain groups, but comes at a significant cost and takes time to clearly explain. This

involves three shots over a three-week period (days 0, 7 and 21) prior to travel. This does not fully immunise the traveller. In case of a subsequent rabies exposure, the traveller needs to know that they must get two more shots (effectively booster doses) to be fully covered. The advantage of pre-exposure vaccination is that it allows more time to get to medical help, and immunoglobulin is no longer required (very expensive, a blood product and often not available anyway). The main drawback is cost – around \$300 for the pre-exposure course of three needles. The vaccine is generally well tolerated in our experience.

Who to vaccinate

The main candidates for pre-exposure vaccination are:

Those at higher risk. Include in this group people moving overseas to live, (especially kids who are less likely to heed advice and less likely to inform their parents if scratched or bitten), long term or repeat overseas travellers and especially those who will be in close contact with animals e.g. vets, volunteers at animal refuges, hunters etc.

Those unlikely to find swift treatment.

Include in this group longer term, 'off the beaten track' travellers, trekkers and workers in remote and difficult to access locations such as deserts and mountain ranges.

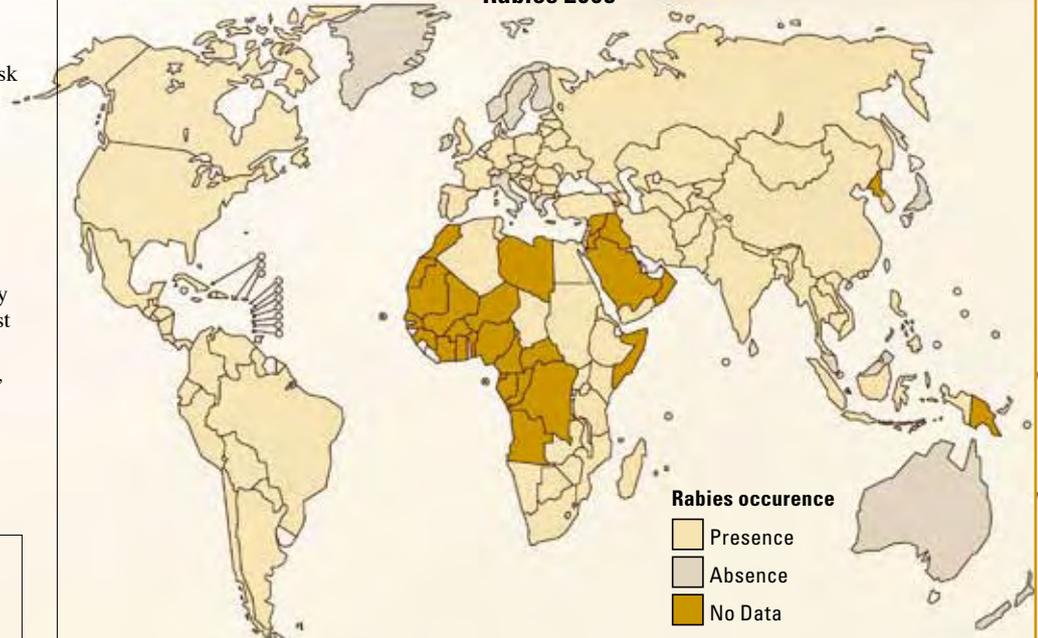
Back to the case study

The Hong Kong traveller was advised to seek urgent treatment in a Hong Kong hospital, and see a doctor promptly on return. If you find yourself in this situation, the State Health Department provides post exposure vaccination and immunoglobulin free of charge – phone the Rheola St Clinic on 9321 1312 to discuss and arrange this. ■



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Rabies 2005



■ Australia is one of few countries in which the rabies virus is not found.

Source: OIE & WHO, 2004

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