

RABIES FACTSHEET

Today we briefly discussed the role of pre-exposure vaccination course for rabies. It is a vaccine-preventable viral disease which occurs in more than 150 countries and territories.

The rabies virus causes an acute progressive encephalitis (swelling, inflammation of the brain) that is invariably fatal. The incubation period is very variable from 7 days up to 25 years is the longest case recorded but is typically 1 -3 months, dependent on factors such as the location of the virus entry and viral load.

Initial symptoms include:

- a sense of apprehension
- headache
- fever
- tiredness
- sensory changes in the wound (neuropathic pain)
- hydrophobia (fear of water) and sometimes aerophobia (fears of drafts or fresh air)

These are followed by:

- excitability
- disorientation
- delirium and convulsions
- death a few days after onset

A person dies from rabies somewhere in the world every 15 minutes!! Presently 3.11 billion people live in the 15 countries in Asia and Western Pacific that are endemic for dog rabies. 40% of people bitten by suspect rabid animals are children < 15 years of age.

Thailand has 6 % dogs as rabid which equates as 1:10 stray dogs and recent studies of backpackers staying in Thailand >30 days showed rates of 6.9 (bitten) and 36 (licked) per 1000 individuals. It has been estimated that 1 million of the 65 million population of Thailand get bitten by dogs every year. Tourists are involved in 1 - 6% of cases and more than **half the cases happened in the first 10 days of arriving in SE Asia**. Interestingly Thai kids get the rabies vaccination as part of their routine childhood vaccination programme.

Rabies is 99% of the time caused by domestic dog bites yet rabies can affect both domestic and wild animals (cases of cats, raccoons, foxes, wolves, bats). **It is spread to humans through bites, scratches usually via saliva.**

Rabies is present on all continents except Antarctica, with >95% of human deaths occurring in the Asia and Africa regions.

Every year more than 15 million people worldwide receive a post-bite vaccination. This is estimated to prevent hundreds of thousands of rabies deaths annually - yet 60,000 people died of rabies in the last financial year.

The International Incidence of Rabies death rate per 1,000,000 population at risk

- Africa 40
- Cambodia 28 - 115
- Bhutan 25 - 75
- Ethiopia 25
- Burma 22
- India 18
- Bangladesh 11 – 18

The monthly incidence of 100 travellers for an animal bite with thus rabies risk is 0.4% which although sounding very low is a lot higher than the risk of typhoid or hepatitis A infection which people will often vaccinate against. If you are visiting a country which has known rabies our clinic strongly advocates all people get the pre-exposure vaccination course - it could save your life!!

FIRST AID TREATMENT OF THE WOUND

- Prompt local treatment of all bite wounds and scratches is the most important first step
- DO NOT SCRUB
- Immediate thorough washing and flushing of the wound with water for 15 min, followed by soap and water, betadine detergent or ethanol (70% vodka would work) with the aim to remove the saliva and thus the virus
- a bleeding wound indicates potential severe exposure and must be infiltrated with HRIG (Human Rabies Immunoglobulin) or ERIG (Equine Rabies Immunoglobulin) (which can be difficult to find overseas and pricey)

The decision to treat depends on the circumstances of the bite, whether you can prove if the animal is vaccinated (impossible obviously if a stray), and the category of exposure defined by the WHO. (see link)

The WHO, World Health Organisation for Animal Health (OIE), the Food and Agriculture Organisation of the United Nations (FAO) and the Global Alliance for Rabies Control have set a global target of "zero human rabies deaths by 2030".



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