Rabies has been known since antiquity.  
It is a potential threat for more than 3.3 billion people living in enzootic areas (that is to say where rabies is present in animals), mainly in Asia and Africa.  
99% of all rabies cases are transmitted by dog bites. 
Rabies remains a neglected disease in Africa and Asia. Only one case in 20 is reported in Asia and only one case in 160 is reported in Africa.  
Rabies primarily affects low income populations: in India, 75% of the victims of animal bites belong to poor populations.

A FATAL DISEASE: 1 DEATH EVERY 10 MINUTES

Once the first clinical symptoms appear, rabies is almost always fatal;  
Annually, rabies causes more than 60,000 estimated deaths worldwide, including about 20,000 in India and 24,000 in Africa.  
84% of all rabies deaths occur in rural areas of Asia and Africa.  
Children, 15 and under, account for 30 to 50% of rabies deaths.  
Children are at particular risk, as they are often bitten on the head, face and arms.

RABIES FACTS: CARRIERS AND TRANSMISSION

Rabies is transmitted to humans by bites, scratches or licks on broken skin from infected animals. 
In Europe and the Americas rabies is present mainly in wild animals  
Bat rabies is increasing in South America and bats are the leading transmitter in the US.  
In Africa and Asia, dogs are the main host and vector 
After penetration of the virus into the body (inoculation), the rabies virus attacks the nervous system and the brain and disseminates to many tissues including, in particular, salivary glands.  
The incubation period (the time between the bite or scratch from an infected animal and the appearance of the first symptoms) in humans is generally 20 to 60 days. The first symptoms are seen 20 to 60 days after a bite or scratch from an infected animal.
VACCINES: HIGHLY EFFECTIVE PREVENTION IN PRE-EXPOSURE OR POST-EXPOSURE SITUATIONS

- **Pre-exposure vaccination** is recommended for:
  - anyone at increased risk of exposure to rabies virus
  - anyone frequently exposed to potentially infected animals (laboratory staff, veterinarians, animal handlers, etc)
  - travelers to areas with high risk of rabies

Pre-exposure vaccination should be promoted for children living in areas where canine rabies is highly prevalent.

Studies from Thailand and several other countries in South-East Asia have demonstrated that pre-exposure vaccination is feasible, safe and effective, even in infants.

- **Post-exposure prophylaxis** depends on the type of contact with the potentially infected animal:
  - If there are only minor scratches or abrasions without bleeding (Category II exposure), local cleansing (flowing water within 15 minutes, antiseptics) must be carried out and followed by immediate rabies vaccination.
  - In case of single or multiple transdermal scratches or bites, or any other contamination with saliva of broken skin or mucous membranes (Category III exposure):
    - WHO recommends post-exposure treatment must include three elements:
      - local cleansing of wounds,
      - passive immunization with rabies immunoglobulin (RIG) that must be infiltrated into and around the wounds
      - active immunization using WHO recommended rabies vaccine
  - RIG for passive immunization must be administered as soon as possible, concomitantly with the first dose of vaccine being administered (in any case, not later than 7 days after the first dose).
  - For previously fully immunized patients (complete WHO approved pre-exposure or post-exposure vaccination series), a rabies booster is necessary but RIG is not recommended.
  - Despite WHO recommendations, administration of RIG is very low in rabies enzootic areas:
    - In the developing world, it is estimated than less than 1% of those requiring category III post-exposure prophylaxis receive RIG.
    - Mass vaccination of dogs (at least 70% of the population) has proven to reduce markedly the incidence of dog and human rabies in Latin America, sub-Saharan Africa, and Asia.
SANOFI PASTEUR: LEADING THE FIGHT AGAINST RABIES

- In the last 20 years, over 20 million people in 100 countries have been treated with Sanofi Pasteur’s rabies products.
- Sanofi Pasteur is the only international company that offers a full range of human rabies biologicals for both active and passive immunization.

Sources:

Updated September 2014

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