

Rabies:

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History:

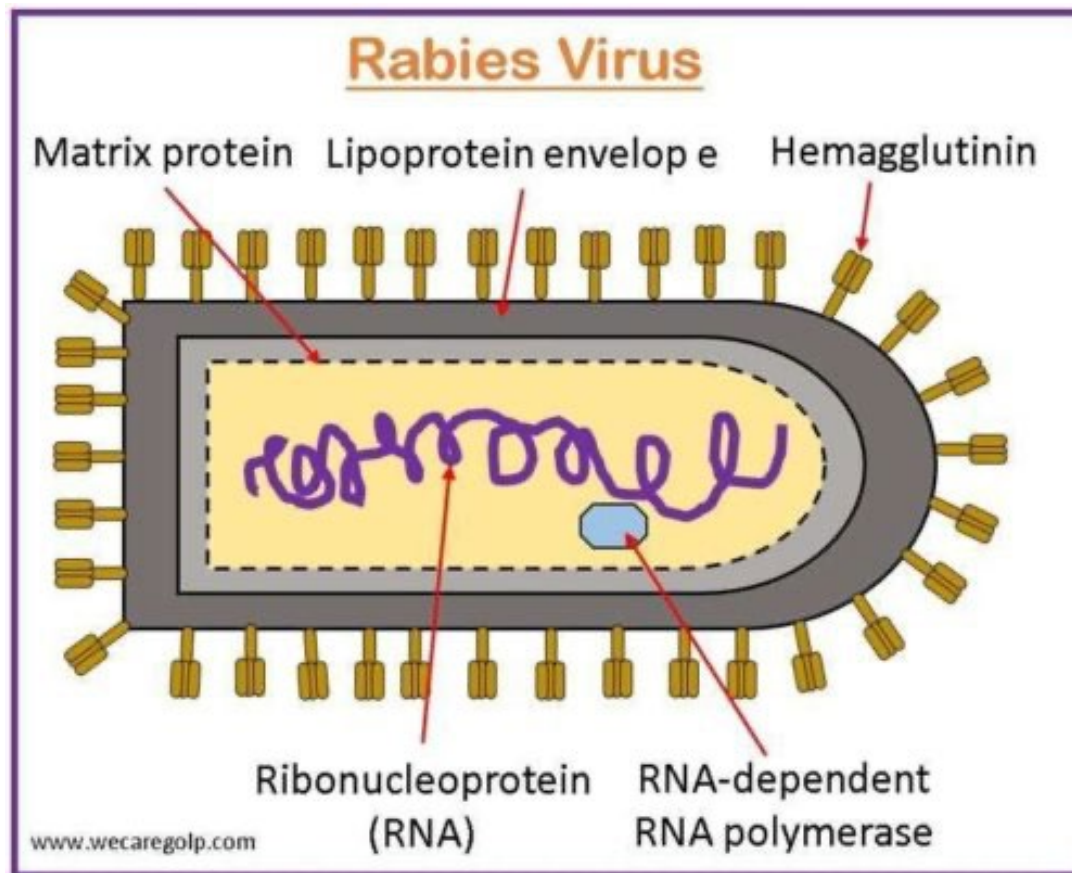
- Around 2,300 BC, rabies was first identified in Egypt, and Aristotle thoroughly described the illness in ancient Greece.
- Rabies in dogs can be described in the Avesta (Persia) from the sixth century BC and the Susrutasamhita (India) from the first century BC.

- In the 21st century, more than 3 billion people are in danger of contracting the rabies virus in more than 100 different nations, resulting in an annual death toll of 50,000–59,000

- Rabies (family Rhabdoviridae, genus Lyssavirus) causes severe damage to mammals' central nervous systems (CNS).
- The majority of human cases of rabies take place in underdeveloped regions of Africa and Asia.

Zoonotic illness:

- Results in deadly encephalitis in mammals



Incubation Period:

- The incubation period varies between 5 days and several years.
- Usually between 20 and 60 days.

Common animals at risk:

- Dogs, monkeys, cats, wolves, goats, rabbits, horses, and cows

- Any mammal can be infected.

Worldwide:

- Humans are most frequently exposed to canine rabies.
- The primary sources of rabies infection in humans are dogs and cats because these two animals are the closest to humans and the environment, as well as house pets .

In industrial countries:

- Wild animals are responsible.
- Raccoons, skunks, and foxes continue to pose significant rabies threats to Americans.
- Wild animals account for more than 90% of reported cases, with bats (33%), raccoons (30%), skunks (20%), and foxes (7%) most often exposing Americans to rabies.

The U.S. :

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- *Bat bites cause 70% of human rabies cases in the US (1-3 /year)*

Priority of risk to humans in the U.S.:

- Bats
- Wild Terrestrial Carnivores
- Small rodents (e.g., squirrels, chipmunks, rats, mice, hamsters, guinea pigs, and gerbils) and lagomorphs (including rabbits and hares) are rarely infected with rabies and have not been known to transmit rabies to humans.

Signs and Symptoms:

- Loss of appetite
- Nausea and vomiting
- Sensitivity to light
- Excessive salivation
- Anxiety and agitation
- Paranoia
- Abnormal behavior (including aggression and bouts of terror)
- Hallucinations
- Hydrophobia (unquenchable thirst with an inability to swallow or show panic when presented with fluids to drink)
- Seizures
- Partial paralysis

Pre-exposure Vaccine:

- High-risk individuals.
 - three doses of rabies vaccine are administered intramuscularly on days 0, 3, and 7.
 - Booster dose every 2-3 years, depending on risk factors.

post exposure prophylaxis (PEP)

- Wound care.
- Administration of anti-rabies serum.
- Anti-rabies vaccine

Human Diploid Cell Vaccine (HDCV): IMOVAX

- 1.0 -ml dose, one each on days 0,3, 7, and 14 intramuscular
 - Adults: Deltoid (not gluteal area)
 - Children: outer thigh (not gluteal area)

Purified Chick Embryo Cell Vaccine (PCECV): RabAvert

- 1.0 -ml dose, one each on days 0,3, 7, and 14 intermuscular
 - Adults: Deltoid (not gluteal area)
 - Children: outer thigh (not gluteal area)

Titer: 14 days after PEP

- Minimum antibody titer accepted as seroconversion
- is a 1:5 titer.

Or

- 0.5 IU/ml

Post-exposure: Unvaccinated

- Schedule for Unvaccinated Individuals:
 - Day 0: Human Rabies Immune Globulin (HRIG) and rabies vaccine.
 - Day 0: Rabies vaccine.
 - Day 3: Rabies vaccine.
 - Day 7: Rabies vaccine.
 - Day 14: Rabies vaccine.
 - Day 28: Rabies vaccine (for immunocompromised individuals only).

Safe in pregnancy

Passive immunization:

- Human Rabies Immune Globulin 20-30 IU/kg.
- Equine Rabies Immune Globulin 40 IU/Kg.

Post-exposure: vaccinated

- Day 0: Rabies vaccine and Day 3: Rabies vaccine.

Questions we get:

- How to use the vaccine?
- Side effect?
- Schedule of vaccine?
- Bites in Mexico: high-risk country
 - **Rabies is a Risk:** Rabies is a severe disease, and it's essential to be aware of the risks, especially in areas where rabies is prevalent.
 - **Vaccine Availability:** Rabies vaccines are typically available throughout most of Mexico.
 - **Traveler Advice:** Before you travel, consider having rabies vaccines; see a travel health professional (at least 4-6 weeks before you travel) if you think you might need a rabies vaccine course or booster dose.
 - **Be Aware of Exposures:** If you think you have been exposed to the rabies virus, be aware of what to do.
 - **Medical Facilities:** Determine if any reliable medical facilities will be at your destination.

Side effects:

- Blood and Lymphatic System Disorders
 - Lymphadenopathy
- Immune System
 - Anaphylactic reaction, serum sickness
 - Dermatitis allergy, pruritus (itching), edema
- Nervous System Disorders
 - Paresthesia, neuropathy, convulsion, encephalitis
- Gastrointestinal Disorders
 - Vomiting, diarrhea
- Musculoskeletal and Connective Tissue Disorders
 - Arthralgia
- General Disorders and Administration Site Conditions
 - Asthenia, malaise, fever and chills (shivering), injection site hematoma
- Respiratory, Thoracic, and Mediastinal Disorders
 - Wheezing, dyspnea

