



Rabies

Assist. Prof. Entisar Khazal
Assist. Prof. Aseel Mohammed
Assist. Lecturer Atheer Nabeel
Assist. Lecturer Thanon Younes

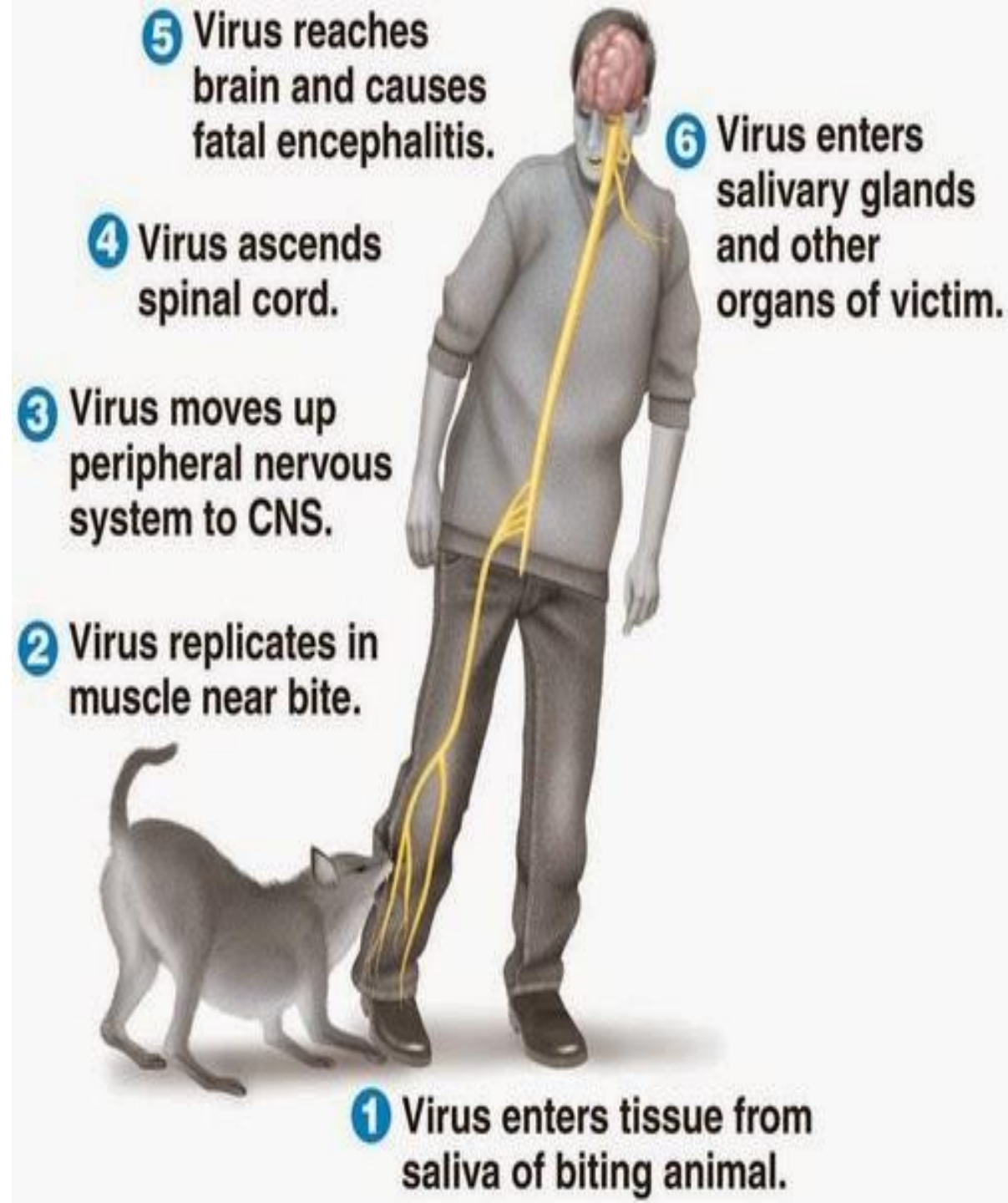
Rabies

- Rabies is a deadly, zoonotic, viral neurologic disease of animals mainly affecting carnivores.
- Caused by a bullet-shaped, enveloped RNA virus that belongs to the genus **Lyssa virus**.
- Characterized by encephalitis, and presence of intracytoplasmic inclusions in nerve cells.



Life cycle:

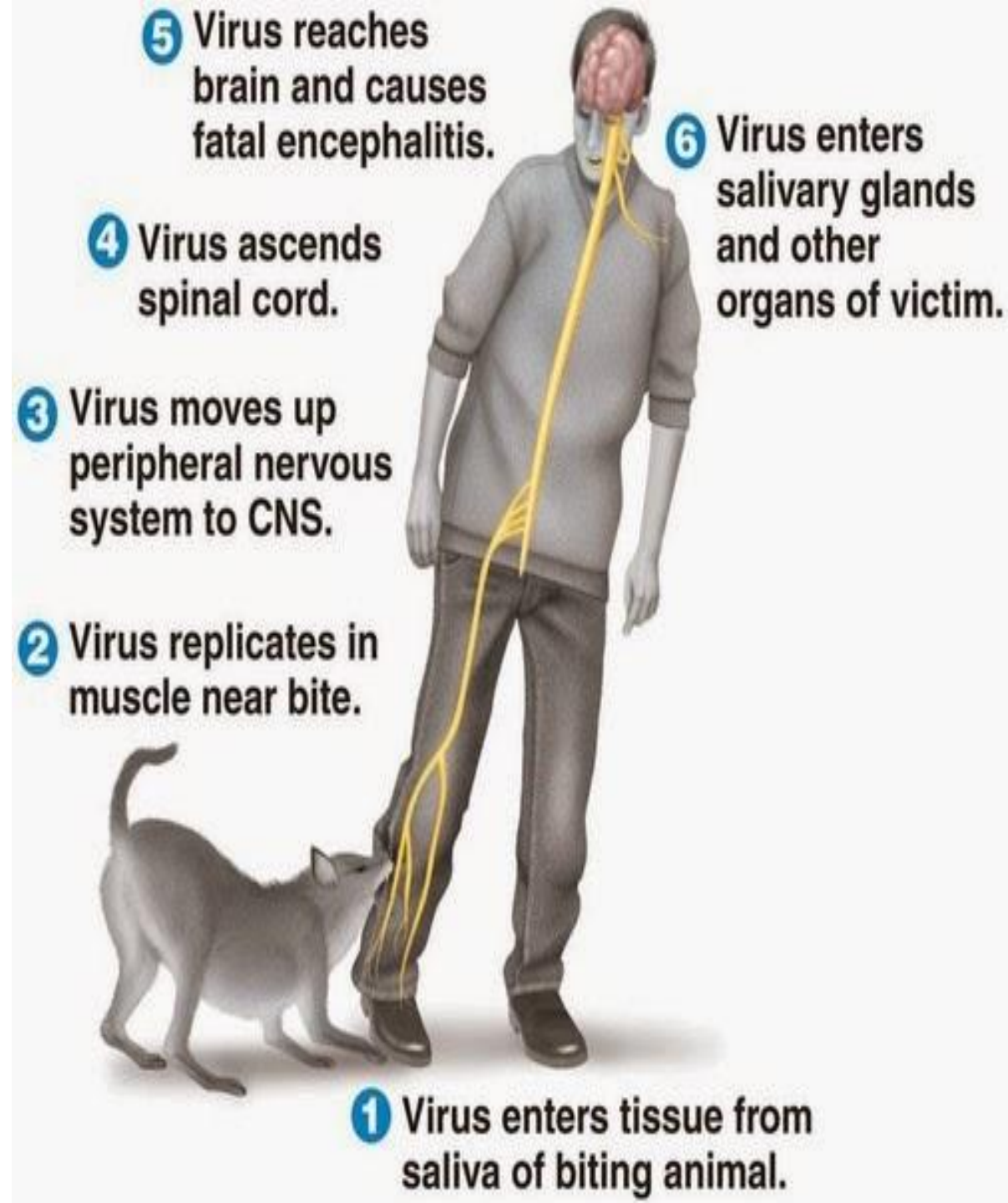
- Rabies viruses move from the site of entry, such as through a wound, and are transported along nerve fibers towards the spinal cord and ultimately the brain, where the virus undergoes replication.
- Abnormal behavior results from the effects of viral infection in nerve tissues.



Signs and their pathogenesis

After inoculation into the subcutaneous tissues and muscle, rabies virus replicates locally within muscle cells and then attaches to peripheral nerve endings.

Local replication around the bite site with the nicotinic acetylcholine receptor being the main receptor for the virus.





Clinical signs:

- **The clinical signs of rabies virus infection have been divided into:**
- **Excitatory (furious) and paralytic (dumb) forms**
- **Three phases have been described in the progression of the disease the prodromal, furious, and paralytic phases there is a history of a wound, or wounds are still present at the time neurologic signs occur.**



Pathologic Findings

- **No characteristic gross lesions except some wooden or non food items present in the stomch of dogs**
- **Lesions consistent with a previous wound.**
- **Necrosis of neurons , perivascular cuffing with lymphocytes in brains.**
- **Intra-cytoplasmic eosinophylic inclusions ((Negri-bodies)).**



Profuse salivation





Dog with rabies
Nervous gate



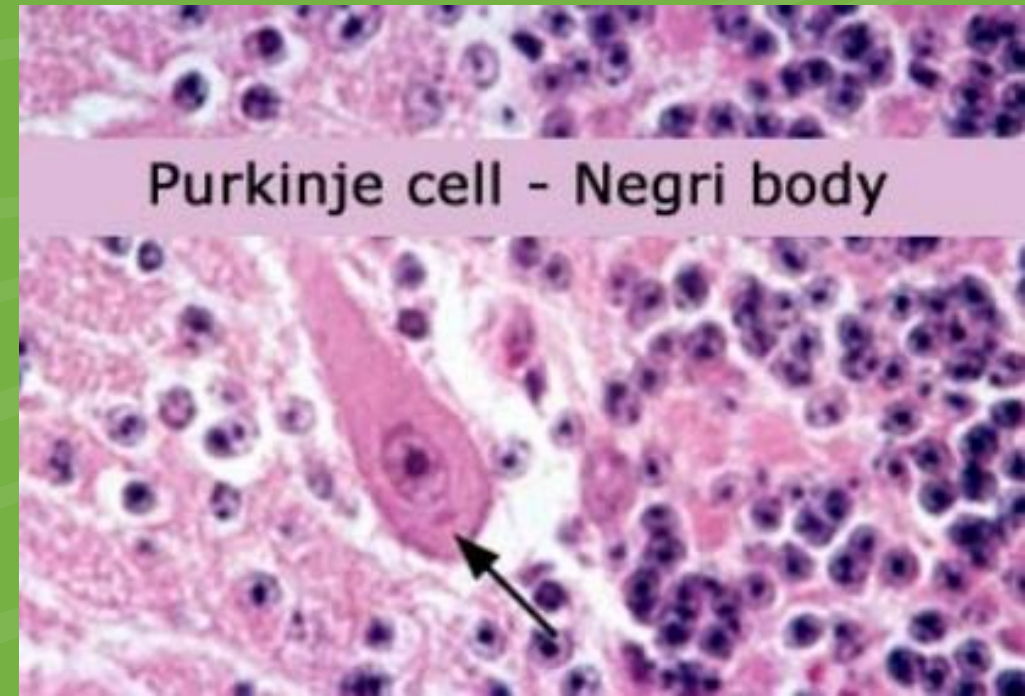
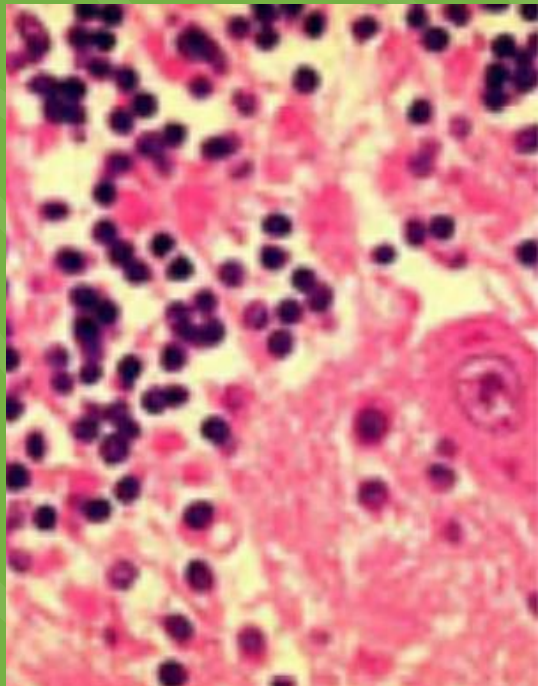
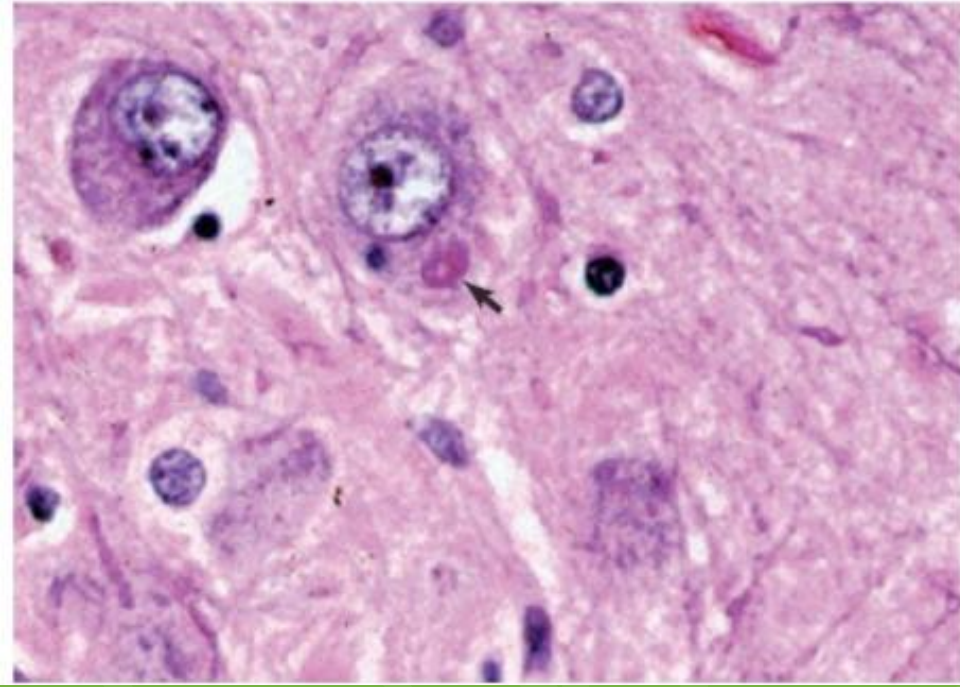


Dog with paralytic stage of rabies in sternal recumbency with torticollis



Note open jaw and visible tongue with excessive salivary secretions resulting from inability to swallow.

Negri Bodies





BITE MARKS

