

Snake bite

It's an important accident affecting domesticated animals. The most common snakes are the *Crotalus* spp such as rattlesnakes and pit vipers, the elapid snakes including the cobra, mamba, and Australia's snakes including tiger snakes and common brown snakes.

Epidemiology ...

1-The incidence of snakebite is controlled by the geographical distribution of the snakes and their numbers.

2-the morbidity rate in farm animals is low, although a mortality rate may reach to 20%

3-Most snakebite accidents occur during the summer months and bites are mainly affected parts which attach the ground.

Pathogenesis ...

- The effects of snakebite (envenomation) depend upon the size and species of the snake, the size of the bitten animal and the location of the bite, particularly with reference to the thickness of the hair coat and the quantity of subcutaneous fat.
- As a general rule the venom is injected by fangs which leave a bite mark comprising a row of small punctures with two large punctures outside them. An exception is the coral snake, which must chew to inoculate the venom
- The important pathogenic effects include

1-Neurotoxins, causing flaccid paralysis, pupillary dilatation and paralytic respiratory failure

2-2-Cyto-toxicity, which are associated with tissue necrosis, including platelets, leading to intravascular coagulation

3-Hemolysins, leading to a hemorrhagic tendency

4-Myotoxins, causing muscle necrosis and myoglobinuria.

Clinical findings ...

1-Bites are associated with a local swelling which develops rapidly and is associated with severe pain, usually sufficient to produce signs of excitement and anxiety.

2-Bites about the head may be followed by swellings of sufficient size to cause dyspnea. If sufficient neurotoxin has been injected a secondary stage of excitement occurs and followed by marked dilatation of the pupils, salivation, hyperesthesia, tetany, depression, recumbency, and terminal paralysis.

3- In small animals, death may occur due to asphyxia during convulsions in the excitement stage of the disease.

4- In animals that recover there is usually local sloughing at the site of the swelling, and secondary bacterial infection may develop

Clinical pathology ...

An ELISA for identification of venom in blood, urine or other body tissue or fluid

Treatment ...

1- the application of a tourniquet proximal to a limb bite site.

2- a firm pressure bandage is applied over the bite to restrict the distribution of the venom via the lymphatics and retain it in the site and prevent systemic effects

3- Excision of the bite site is recommended

4- Systemic treatment should include antivenin, antibiotics, and antitoxin

5- ACTH, cortisone, and antihistamines. These drugs have been found to be valuable as a protection against possible anaphylaxis after treatment with antivenin,