Veterinary Science
Preparatory Training for the Veterinary Assistant
Floron C. Faries, Jr., DVM, MS
Rabies Control Program

Floron C. Faries, Jr., DVM, MS
Objectives

- Understand that because rabies is a reportable disease, it has been controlled.
- Understand that health regulations for rabies prevent its spread among animals and to humans.
History of Rabies

- Human deaths
  - 1940’s – 40 per year
  - Since 1980 – <2 per year

- Cases reported
  - Prior to 1958 – most in domestic animals
  - After 1958 – most in wild animals
  - Only 15% of current reported cases are in domestic animals.
Rabies

- Viral disease of warm-blooded mammals
  - Affects the central nervous system.

- Disease of overpopulation of wildlife, domestic animals and people in association

- Zoonotic disease

- Reportable to state public health agency
Causative Agent

- Caused by wildlife viral strains:
  - Skunk
  - Bat
  - Coyote
  - Fox
  - Raccoon

- Wild animal reservoirs
High-Risk Species
- Skunks
- Coyotes
- Foxes
- Raccoons
- Bats

Low-Risk Species
- Opossums
- Armadillos
- Rabbits
- Rats
- Mice
- Squirrels
- Beavers
Since 1980 in the U.S., more than 90% of the human rabies cases were the bat strain from bats.
Transmission

- Transmitted by all warm-blooded mammals.
- Saliva is the primary means of transmission.
- Virus in saliva enters the skin by:
  - Animal bites
  - Breaks in the skin
- Virus migrates from skin:
  - To nerves
  - To spinal cord
  - To brain
  - To salivary gland
Saliva of skunks contains more rabies virus than any other species.

From exposure to clinical signs:
- Average incubation period is 3-8 weeks.
- Incubation period range is 10-210 days.
Three phases of the disease

- Incubation period
- Clinical signs
- Paralysis

FIGURE 4—Filipino man attempting to prove he does not have rabies by drinking milk from a spoon. Notice neck musculature straining to accept fluid. Unfortunately, this individual slipped into a coma and died 24 hours later. (Photo courtesy of Dr. George W. Beran.)
Clinical Symptoms (Behavior Change)

- Altered temperament
- Anorexia
- Apprehension
- Nervousness
- Irritability
- Hyperexcitability
- Ataxia
Diagnosis

- Dumb rabies (hydrophobia)
  - Throat paralysis (cannot drink, swallow)
  - Saliva accumulates, foams, drools
  - “Dumb look”
  - Bites
  - Rear paralysis

- Furious rabies
  - “Mad dog” look
  - Attacks and bites
  - Rear paralysis

- Veterinarian submits brain for lab testing.
Human Bitten by Animal

- Capture the animal.
  - Do not shoot the suspected animal in the head.
  - Contact private veterinarian.
- Contact local health official.
- Contact physician.
- Treatment
  - Wash the wound thoroughly with soap and hot water as an immediate first aid procedure.
Consult a physician as soon as possible concerning the advisability of anti-rabies treatment.

Post-exposure prophylaxis decision based on:
- Species of biting animal
- Vaccination status of animal
- Provoked vs. not provoked
- Prevalence of rabies in the area
Prevention

- Don’t adopt wild animals.
- Vaccinate companion domestic animals and ferrets.
- Avoid contact with wild animals.
- Discourage potential rabies reservoirs from inhabiting premises around home.
  - Eliminate brushy, grassy areas for wildlife nesting.
  - Keep pet and livestock foods away from wildlife.
  - Eliminate wild persimmon trees and berry vines that attract wildlife.
Rabies Control Program

- Local Rabies Control Authority (LRCA)
  - Health and Safety Code 826.017
    - Commissioners Court of each county and local governing body of each municipality shall designate...local rabies control authority.
      - Health official
      - Animal control officer
      - Peace officer
      - Any other entity
City or county enforces State and Local Regulations.
- Need an informed and cooperative public.
- Require vaccination of dogs and cats.
  - To serve as a barrier between humans and wildlife.

Vaccination of all dogs and cats by 4 months of age required.
- Vaccine administered by or under supervision of a veterinarian.
  - Revaccinate yearly.
  - Revaccinate every 3 years after two consecutive years.
- Vaccination certificate and tag issued and retained.
  - Veterinarian keeps records for 3 years.
Rabies Vaccination Certificate and Tag
- City or county impounds strays.

- City or county quarantines rabies suspects.

- Vaccinate confined livestock in epidemic areas suggested.

- No rabies vaccine is licensed for use in wild animals.
Quarantine biting dog or cat.
- 10 days
- Death follows 4 to 7 days after the onset of clinical signs.
- Euthanatize and test immediately wildlife and unowned dog and cat.

Quarantine bitten dog or cat.
- 45 days if vaccinated
  - Revaccinate immediately.
- 90 days if not vaccinated
  - Vaccinate immediately.
  - Revaccinate 3 wks and 8 wks during quarantine.
Laboratory-confirmed rabies in all species, 2010

Map updated on: Friday, December 17, 2010

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