Bites, Bats, and being safe
...a quiz about RABIES

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Overview

- What is rabies?
- What animals transmit rabies?
- “The unapparent bat bite”
- Rabies exposure treatment
- Reporting bites
- Dog bite prevention
Quiz #1 - What is rabies?

A. A bacteria that eats flesh
B. A virus that infects the brain
C. A fungus that infects the toes

Photo stanford.edu
What is rabies?

- **Virus**
- Transmitted in saliva, by bites
  - Contacts with blood, urine, feces of infected animal are NOT considered exposure.
  - Does not survive long outside of body
- Causes brain inflammation in **mammals**
- Fatal once symptomatic
- Kills 55,000 people per year worldwide
  - Most infected after dogs bites in other countries
  - Kills 1-3 Americans per year – often from bats
  - Many thousands of Americans exposed and treated.
Quiz #2 - What is the **most common** incubation period for rabies in people?

A. Twelve hours
B. One or two days
C. 4-12 weeks

Range = 10 days – 7 years.
Several cases in US have had 1-2 year incubation periods.
Human Rabies Symptoms

- Numbness, tingling of bitten limb
- Headache, flu-like signs
- Problems swallowing, drooling
- Fear of wind and water
- Agitation, disorientation
- Slurring of words
- Tremors, seizures
- Coma
- Death
Rabies Symptoms - Animals

- **Furious rabies**
  - Aggressive, attacking, drooling, unafraid.

- **Dumb rabies**
  - Weak, paralyzed, unafraid, drooling.
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Quiz #3 - Which animal is the MOST likely to carry rabies?

A. Coyote
B. Squirrel
C. Rat
D. Bat
Quiz #4 - Which animal is the **LEAST** likely to carry rabies?

A. Skunk  
B. Squirrel  
C. Raccoon  
D. Bat
Wild Animals

In California

- BATS and SKUNKS – highest risk of rabies
- Raccoons, foxes, and coyotes are also considered high rabies risks.
- Squirrels, rodents, rabbits – almost no risk.

Sizes of photos reflect relative risk
Of rabies carriage in California as of 2007
Dogs and cats

United States
- Low-to-moderate risk
- Dogs
  - Legally-required rabies vaccination since 1950s
- Cats
  - Vaccination laws vary
  - More rabid cats than dogs in US
- Before laws: thousands of rabies cases
  - 1937 – LA County rabies cases
    - Dogs – 1730
    - Cats – 20
    - Humans - 1
Dogs and cats

Outside United States

- Some rabies-free areas (England, Taiwan, New Zealand...)
- Very high risk many places - dogs
  - 2005 Mexico – over 100 rabid dogs reported around Mexico City
  - 2006 China – over 3000 people died from rabies from dog bites
- Huge increase in smuggling of puppies into US since 2004
  - 10,000 crossing Mexican border/year, hundreds by air, forged papers
  - Sold by classified ads, swap meets, parking lots. $$ $$ $$
  - Are we importing rabid dogs?
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Quiz #5 - You find a bat in a room with a child. You remove the child from the room, then you:

A. Open the windows and try to get the bat to fly away.
B. Kill the bat with a broom and throw it out.
C. Cover the bat with a bucket to trap it (without touching it) and call Animal Control.
Bat Bites

- Most human rabies in US from bites of insect-eating bats.
- Some bites too small to see.
- Bites from bats are considered rabies exposures.
  - Unless bat is tested and is negative.
- Bats found near children, pets, or sleeping people MUST be tested for rabies.
  - Even if there is no known bite.

Pictures courtesy CDC
Bats and Rabies

- Most bats not rabid
  - Fewer than 1/1000
  - Protected by law

- Rabid bats
  - More likely to be
    - On ground
    - Flying in daylight
    - Near people, pets

Bats roosting in crevice between balcony and side of house, Woodland Hills, 2005.
Rabid bats in LA

- Summer camp
  - 3 bats (2 rabid)
  - 14 children touched

- Elementary school
  - 3 bats (2 rabid)
  - None touched

- High school
  - 1 rabid bat, several “rescued” bats
  - Teacher helped kids take bats home
  - 6 students needed treatment

- 24 in 2007
  - usually 8-12
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Quiz #6 - If a person is exposed to rabies, the treatment to prevent rabies is:

A. Vaccine given four times in the upper arm over two weeks, plus one dose of immune globulin near bite wound.
B. One shot (vaccine) in the upper arm.
C. 30 shots (vaccines) in the stomach given over a two month period.

- Note: treatment must start LONG before symptoms appear.
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Quiz #7 - A child says a dog bit him in the school yard. You:

A. Inspect the injury, tell the nurse, tell the parents.

B. Same as #1, but also insist that the child’s parents get rabies treatment for him.

C. Same as #1, but also:
   - Find out where the dog is now, what type of dog
   - Find out where it lives (if not a stray)
   - Report the bite to Public Health or Animal Control

Note: child might not need rabies treatment.
Reporting Animal Bites

Who is required to report bites by law?

- Anyone with knowledge of bite
- Report to Public Health or Animal Control
- Location, description of animal important!

What happens then?

- Dogs and cats
  - 10 day quarantine or test for rabies
- Horses, livestock
  - 30 day quarantine or test
- Wild mammals
  - No quarantine – test only
- Squirrel, rodent, rabbit bites NOT legally reportable

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Quiz #8 - What should children do when approached by a stray dog?

A. Hold out a hand for the dog to sniff it.
B. Hold very still, arms held in to body, looking away from dog.
C. Run away, scream for help
Be A Tree

Stop

Fold in your branches

Watch your roots grow and count in your head

www.be-a-tree.com
Dog Bite Data

Every year in the U.S.
- 4.7 million bitten, 800,000 seek medical care, about a dozen die.¹

Children and dog bites
- Age 4 years and younger
  - most bites to head and face
- Age 5-9 most frequently bitten
- Dog usually known to child (family or friend’s dog)
- Child usually instigates confrontation

1 – Centers for Disease Control and Prevention
Dog Breeds and Dog Bites

Breed ≠ Bite risk prediction

Key factors determining dog’s bite risk

- History
  - prior aggression to people, to other animals, predatory behavior
- Training and socialization
- Stress and pain level
- Dog-behavior education of children (and adults)
Stray dog bite prevention for kids

- “Be a tree” (without branches)
  - Be quiet, motionless, hand in armpits, no eye contact with dog.
  - Do not run or scream!
- If dog begins to bite:
  - “Feed” bookbag or jacket to dog.
- If knocked to ground:
  - Fetal position, cover face and neck with hands.
Owned Dog Bite Prevention

- Get right dog
- Exercise, socialize, train dog
- Notice dog’s pain, feelings
- Seek medical care for dog
- Train children to “read” dog, stay away from dog’s “things”
  - Dogs view children as siblings, not leaders
- Never leave small children alone with *any* dog (even a Chihuahua!)
Questions?

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