Reading: Treating Animal Bites

Vocabulary

Australian bat lyssavirus (ABL)
bacteria
to bite a bite
copious
to crush
to delay
domesticated
fang
fatal
fever cat scratch fever
to handle
to immunise immunisation
immunosuppressed
inoculate
laceration
occult
osteomyelitis
native animals
penetration
pet
primary closure
to provoke unprovoked
puncture
rabies
rare
rash
to roam

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 Activity: Complete the text using the terms in the vocabulary list. Check it with the transcript.

Around 64% of Australian households have a pet. Many Australians report an animal bite at least once in their lifetime. Around 100,000 Australians are bitten by dogs each year, 13,000 of those injured needing medical treatment. 85-90% of animal bites are dog bites. Children under the age of 5 are at the greatest risk of a bite, usually on the face. Adults tend to be bitten on the upper arm by freely roaming dogs. Around 18% of dog bites become infected.

Only 10% of animal bites are cat bites which are often unprovoked. 28 to 80% of the wounds become infected. Cat-scratch fever can be transmitted by the bite of an infected cat or cat flea.

Human bites account for 2-3% of all bites, with males between 16 and 25 being at greatest risk of being bitten. Infected human bites may contain bacteria such as streptococcus or staphylococcus aureus. Any human bite should be treated seriously especially if it is bleeding, even slightly.

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2-3% of animal bites are caused by rodents, 10% of which become infected. Rat bite fever is a type of rodent infection is characterised by a triad of fever, rash and arthritis.

In Australia, people who handle bats are at risk of Australian bat lyssavirus infection. The ABL virus is related to rabies and carried by bats but is not spread to native or domesticated animals. Although it rarely infects humans, there have been three fatal cases of ABL infection in Australia in the mid-1990s and 2013.

The management of animal bites

- Document fang penetration.
- X-Ray the bite
- Treat infected wounds
- Administer tetanus booster

1. **Document fang penetration**

   Animal fangs can inoculate bacteria into deep tissues like bones, vessels, tendons, muscle and nerves.

   Dog bites cause crushing wounds because of their rounded teeth and strong jaws.

   The sharp, pointed teeth of cats cause puncture wounds and lacerations that may inoculate bacteria into deep tissues.

2. **X-Ray the bite area to exclude occult or hidden fractures, bone penetration and animal tooth remnants.**

   Medical imaging is always indicated for hand wounds, deep punctures, crushing bites and bites over joints.

   X-rays may also show signs of osteomyelitis.

3. **Treat infected wounds**

   Bites on the hand have a high risk of infection because many structures in the hand have a poor

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blood supply.
In general, the better the vascular supply, the easier a wound is to clean.
This is the reason why lacerations have a lower risk of infection than puncture wounds.

4. **Administer tetanus booster**

If a booster has not been given in the past year.
Patients who may not have been immunised should receive tetanus immune globulin.

5. **Educate patients about prevention of animal bites**

Teach children to approach unfamiliar pets with caution and to wash hands carefully after handling pets.
Educate on early signs of infection in bite wounds and ensure patient returns within 24 to 48 hours for a review of the wound.

6. **To suture or not?**

Animal bites should be cleaned under pressure with copious amounts of saline or water.
Primary closure or suturing of wounds should only be considered in bite wounds that can be cleansed effectively.
Bites to the hands and lower extremities which have not been cleaned within 10 hours of the bite should be left open.
Delayed primary closure is also recommended for patients who are immunosuppressed.
Transcript

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