Case #101

NAME Educational Activities Committee

Case provided by:

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1. The decedent was involved in a traffic stop by law enforcement for suspicion of operating a stolen vehicle. It was reported that he briefly exited the vehicle to fire two rounds at the officers, who returned fire, striking the decedent multiple times while he was in the driver seat of the vehicle. Officers reported using both 9mm and .223 ammunition, in addition to the deployment of non-lethal resources.

Which of the following injuries are depicted?

- ◯ Entrance gunshot wounds
- ◯ Exit gunshot wounds
- ◯ Secondary projectile wounds from intermediary target
- ◯ Conducted energy device
- ◯ Dog bites

Answer...

E. Dog bites (CORRECT ANSWER, 58.38 % of responses)

Dog bites are a combination of tearing and compressive forces resulting in lacerations/avulsions, contusions, abrasions, and bone fractures. Teeth with rounded apices and tapered ends may create penetrating blunt trauma or puncture wounds with a characteristic “hole and tear” pattern, with the tooth serving as an anchor, and shaking of the head resulting in tears.

Wounds can be individual or more often paired. Teeth that do not penetrate the skin may cause parallel superficial abrasions as they drag across the skin. The combination of injuries may be arranged in a semicircular or circular pattern representing the teeth from the maxillary and/or mandibular jaws. Odontological evaluation of bite marks as well as DNA swabs can be helpful when identification of the attacker is required.

Histologic evaluation commonly reveals a wedge-shaped defect of the skin with hypereosinophilic crushed collagen, hemorrhage, necrotic epithelium and dermal adnexa, foreign material including bacteria, and crushed, fragmented, or intake hair shafts.


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Other responses

A. Entrance gunshot wounds (2.59 % of responses)

Entrance gunshot wounds generally consist of a central round defect with a marginal abrasion. The shape of the defect and surrounding abrasion can vary based on the location on the body and the trajectory of the projectile. The presence of a muzzle imprint, searing, soot, or stippling is also helpful features in identifying entrance gunshot wounds. The wounds depicted in the images are more consistent with dog bites.

B. Exit gunshot wounds (1.68 % of responses)

Exit wounds are irregularly shaped defects with ragged or lacerated margins, generally without a central round defect upon reapproximation of the edges. There is absence of a muzzle imprint, searing, soot, or stippling. The wounds depicted in the images are more consistent with dog bites.

C. Secondary projectiles from intermediary target (32.32 % of responses)

Intermediary targets can alter the appearance of entrance gunshot wounds. Intermediary targets are any object between the firearm and skin, such as clothing, jewelry, items within clothing, doors, windows, or vehicle parts. The wounds depicted in the images and the pattern of injuries are more consistent with dog bites.

D. Conducted energy device (5.03 % of responses)

Electrical weapons consist of metal electrodes that can be physically placed on a subject's skin or clothing (stun gun) or deployed from a gun-like device. Both probes need to make contact for the electrical charge to be delivered. Injuries include two small superficial puncture wounds (if the probes penetrate the skin) or two small red dot-like skin lesions or burns approximately 2 cm apart. The wounds depicted in the images are more consistent with dog bites.

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