

Case #70

NAME Educational Activities Committee

Case provided by:

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Lorenzo Gitto, MD, Forensic Pathology Fellow, Cook County Medical Examiner's Office, Chicago 1. The decedent is an adult male with a history of seizure disorder who was found unresponsive in his friend's residence. Numerous injuries were observed at autopsy, particularly focused on the upper extremities. What is the most likely cause of these injuries?

◯ Defensive wounds (assault with a knife)

○ Multiple small-caliber gunshot wounds

) Multiple injuries due to animal mauling

O Blunt force trauma associated with a heavy, thin object

Seizure disorder with collapse into glass table





Answer...

C. Multiple injuries due to animal mauling (68.2% responses)

Animal mauling wounds are injuries caused by animals such as dogs, bears, or other large animals. These wounds can vary in severity and can result in significant tissue damage, blood loss, and death. In forensic investigations, analyzing animal mauling wounds can provide important information about the circumstances surrounding the incident, such as the type of animal involved and the nature of the attack. Common features of dog mauling wounds include multiple overlapping injuries such as puncture wounds, lacerations, and abrasions. The wounds are irregular and jagged with a distinctive pattern of puncture wounds, skin tearing, and lacerations of variable depth. These wounds may penetrate deep into the tissue, causing damage to bones or internal organs. Additional evidence, such as bite marks, saliva, or animal hair, can also identify the presence of a dog mauling, although postmortem changes and animal scavenging may alter the original wounds. The location and pattern of the wounds can help determine the event dynamic. If the injuries are isolated to a single body region, it may suggest that the victim was already dead before the attack, while multiple body areas involved, especially the extremities, suggest that the victim was alive and defending themselves.

Other responses:

A. Defensive wounds (assault with a knife) (3% responses)

Defense wounds are injuries typically caused by sharp objects, such as a knife, during an attack or altercation where the victim was attempting to defend themselves. They usually occur on the hands and forearms. "Active" defense wounds refer to injuries sustained while the victim is actively fighting back against an attacker. These wounds tend to be deeper and more severe than "passive" defense wounds and are caused by the victim striking out at the attacker with a weapon or using their hands to fend off the attack. Conversely, "passive" defense wounds occur when the victim is trying to protect themselves by blocking or shielding the attack with their body or limbs. These wounds are generally shallower and less severe than active defense wounds and are caused by the attacker's weapon coming into contact with the victim's arms, hands, or other parts of the body. These types of injuries can manifest as shallow cuts, punctures, stab wounds, or abrasions, and may be accompanied by bruising or other indications of trauma. Irregular lacerations (as seen in this case) are not typically present in sharp force trauma.

B. Multiple small-caliber gunshot wounds (1.96% responses)

The photos display numerous wounds of different shapes and sizes. Nevertheless, their characteristics do not suggest gunshot wounds, which are usually circular or oval-shaped and may have a marginal abrasion (although it may be absent in case of small caliber bullets such as .22) and other secondary findings based on the range of fire. The observed injuries are jagged and irregular, with skin tearing and abrasion surrounding the wounds, which aligns with injuries caused by animal attack.

D. Blunt force trauma associated with a heavy, thin object (1.96% responses)

Blunt force injuries can result in a variety of tissue damage, including lacerations, contusions, and abrasions. However, when a thin blunt object like a tire iron is used as a weapon, it often produces more distinct patterns of injury such as circular, linear, or parallel contusions, abrasions, or lacerations. The damage to the tissue caused by this type of weapon is typically limited to the immediate area of impact and may not extend beyond it. Puncture wounds and skin tearing are not usually associated with blunt force injuries, particularly those caused by thin blunt objects.

E. Seizure disorder with collapse into glass table (24.88% responses)

Injuries caused by glass fragments can vary depending on the circumstances of the incident. Generally, possible types of injuries that may result from accidental contact with glass fragments include superficial cuts and minor lacerations. Large abrasions are typically not seen. The number and severity of lacerations and abrasions, and skin tearing showed in this case are excessive to be considered due to glass fragments.

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