



Case #102

NAME Educational Activities Committee

Case provided by:

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1. A 70-year-old person is found in a park, in the beginning stages of decomposition, with a gunshot wound of the head and a gun in their lap. There was not much blood present at the scene. There is no history of prior suicide attempts, mental health issues or drug use, and there is no note of intent found on scene. The past medical history is positive for cardiovascular disease, chronic obstructive pulmonary disease and chronic pain. Postmortem toxicology is negative.

These relatively superficial wounds found on both forearms/wrists are most consistent with?

- Postmortem insect activity
- Varicose vein rupture
- Gunshot wounds
- Stab wounds
- Chronic substance use by injection

Answer...

A. Postmortem insect activity (CORRECT ANSWER, 36.81% of responses)

The pictures provided depict postmortem insect activity including defects from fly larvae (maggots) and evidence of surrounding ant activity.

Fly larvae eat dead tissue and may create holes, which can mimic gunshot wounds. In this case, dissection showed only superficial defects that didn't penetrate the underlying tissue and didn't connect to other defects nearby (first photograph).

Ant bites can look like red punctate and coalescing abrasions and may ooze bloody fluid. They are usually located on the exposed body parts, sometimes with sharp demarcation to surrounding clothing, and can mimic stippling.

Other responses

B. Varicose vein rupture (10.83% of responses)

Varicose vein rupture can occur spontaneously or due to minor trauma. They are more common overlying protuberances of the lower legs. The perforated vessel would be seen on examination and exsanguination would be a proposed mechanism of death. There was not much blood found on scene and livor was present on dependent body surfaces.

C. Gunshot wounds (31.69% of responses)

Gunshot wounds, while considered in this case due to the external appearance of these wounds, would create perforation underlying the skin surface and cause injuries or hemorrhage of the deeper tissues along the projectile path.

D. Stab wounds (7.48% of responses)

Stab wounds would penetrate deeper into the underlying tissue, and usually don't show wide, circumferential abraded margins as are shown in these photographs.

E. Chronic substance use by injection (13.19% of responses)

Chronic substance use by injection, or “skin popping” could be considered in this case; however, there was no history of drug use and no evidence of similar looking healed lesions (see example on the next page). On toxicology testing, no drugs were detected.

Skin popping scars



REFERENCES

1. DoberentzE, HagemeyerL, VeitC, Madea B. Unattended fatal haemorrhagedue to spontaneous peripheral varicose vein rupture--two case reports. Forensic Science International, 2011-03-20, Volume 206, Issue 1, Pages e12-e16, Copyright © 2010 Elsevier Ireland Ltd. Accessed online May 21, 2024.
2. DolinakD, MatshesEW, Lew EO. Forensic Pathology Principles and Practice. Elsevier Academic Press. 2005, Elsevier Inc..