

Murder or Suicide?





Casefile 20260803:

Victim: Unknown

Weapon: A knife

Witnesses: None

CCTV: None

Suspect: Unknown



The only evidence left behind is the victim's body. Could the wounds themselves determine whether someone died from self-inflicted harm, or whether someone else was involved?

Pathologists must face this question every day.



Researchers in Lisbon, Portugal, wanted to understand whether certain injury patterns consistently distinguished homicide from suicide in sharp-force deaths.

The investigators analysed the following (2012 - 2019):



Medico-legal autopsy records

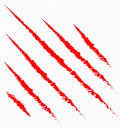
Sharp force fatalities (n = 77)





Victim Characteristics

Wound Characteristics





Clothing damage

Alcohol Involvement





Defence injuries

Manner of death

The pathologists' top leads

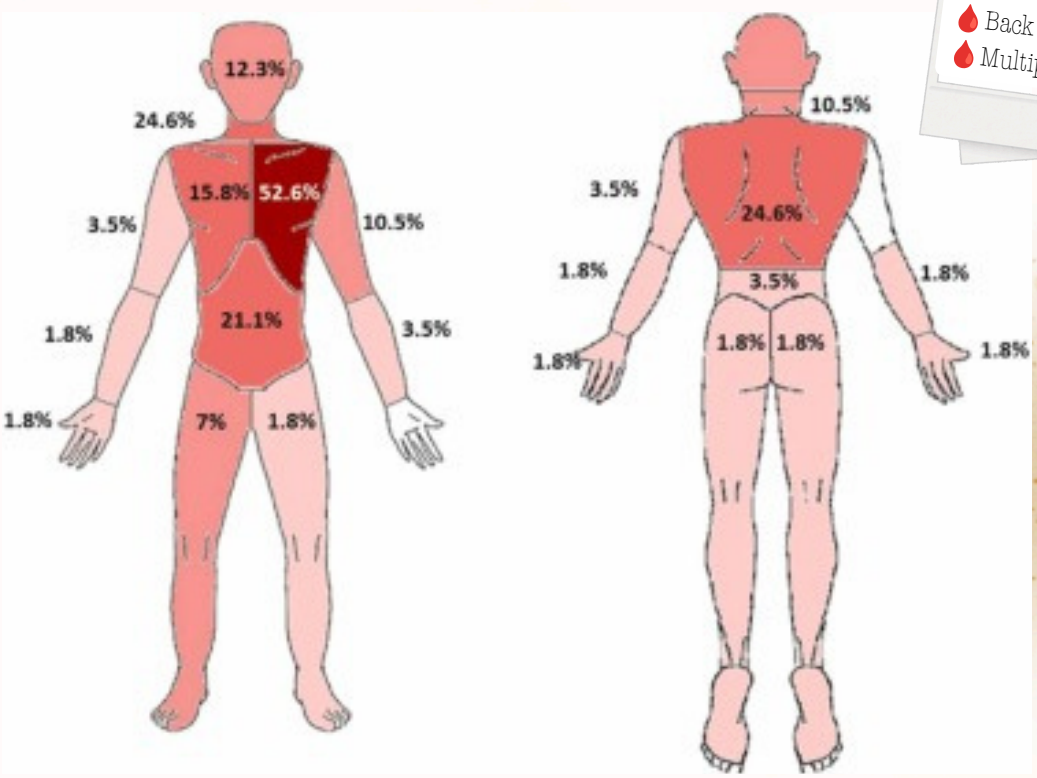
Clue #1 - Location

Where were the wounds?

The top contenders:
- Chest
- Neck
- Back
- Multiple regions

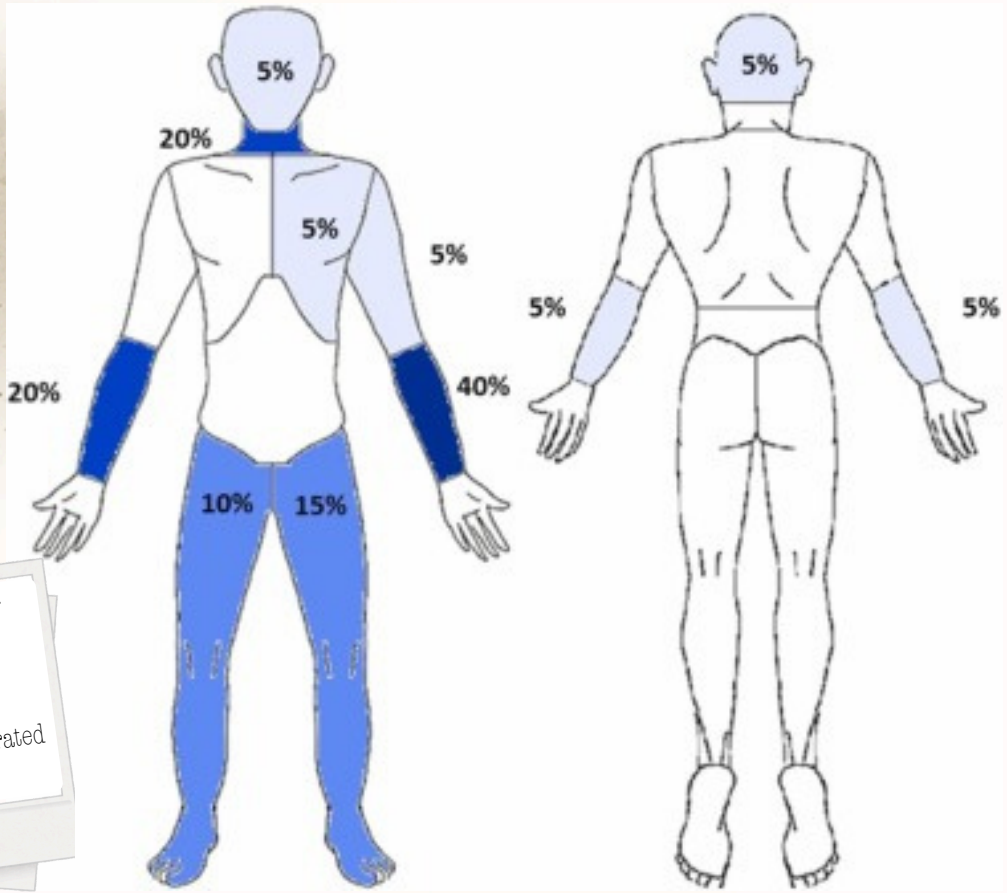
Homicide

stab wounds > cut wounds



Percentage of homicide victims (n = 57) with at least one stab wound in each anatomical region.

VS



The top contenders:
- Neck
- Wrist
- Front of body
- More concentrated injuries

Suicide

stab wounds < cut wounds

Percentage of suicide victims (n = 20) with at least one cut wound in each anatomical region

Clue #2 - The Upper Limbs

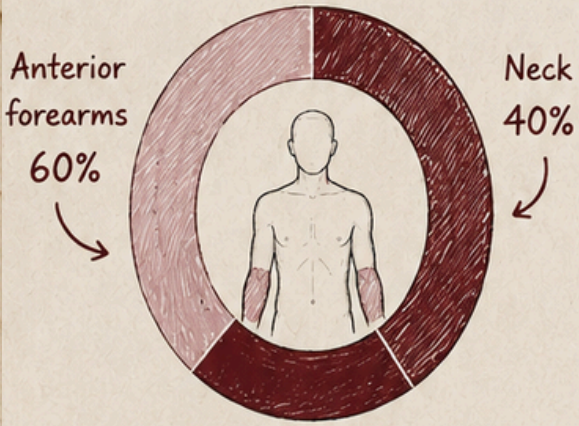
What kind of wounds were left behind?

HESITATION WOUNDS

DEFINITION:
Superficial cuts inflicted on easily accessible areas of the body, usually made prior to a fatal act.

OBSERVED IN
10 of 20 suicide victims (50%)

LOCATION (n = 33)



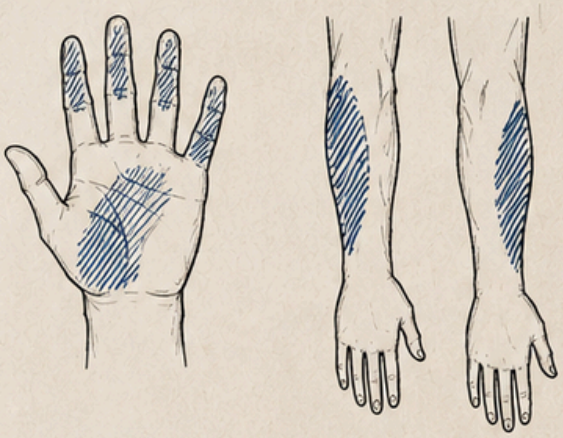
✗ No hesitation-like wounds were observed in homicide victims in this study.

DEFENSE WOUNDS

DEFINITION:
Injuries sustained when a person uses their arms or hands to protect themselves from an attack.

OBSERVED IN
19 of 57 homicide victims (33.3%)

LOCATION (n = 81)



Right and posterior aspects of the hands and forearms (predominant)

(OpenAI, 2026)

Key takeaway:

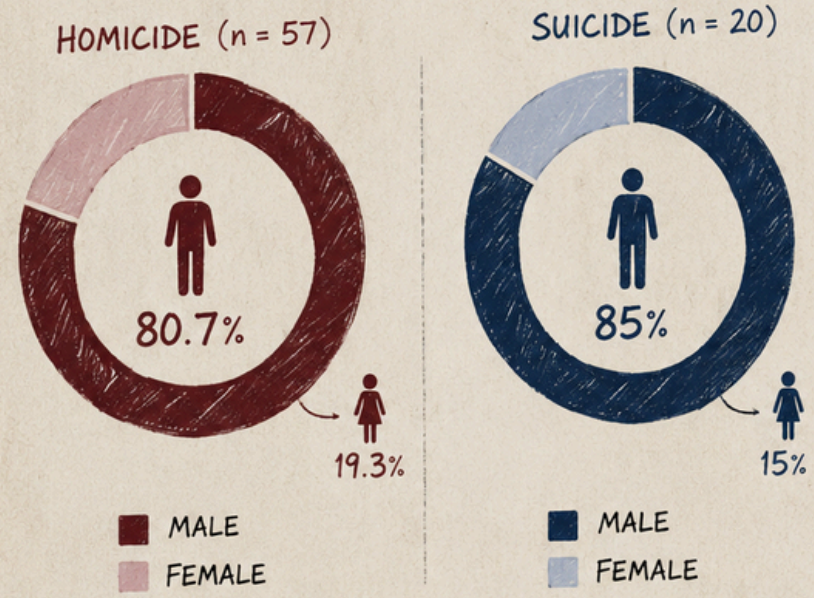
Hestitation marks were only seen in suicide victims, while defence wounds were only observed in homicide victims

Clue #3 - Demographics

Distinguishing features of the victims

SEX DISTRIBUTION

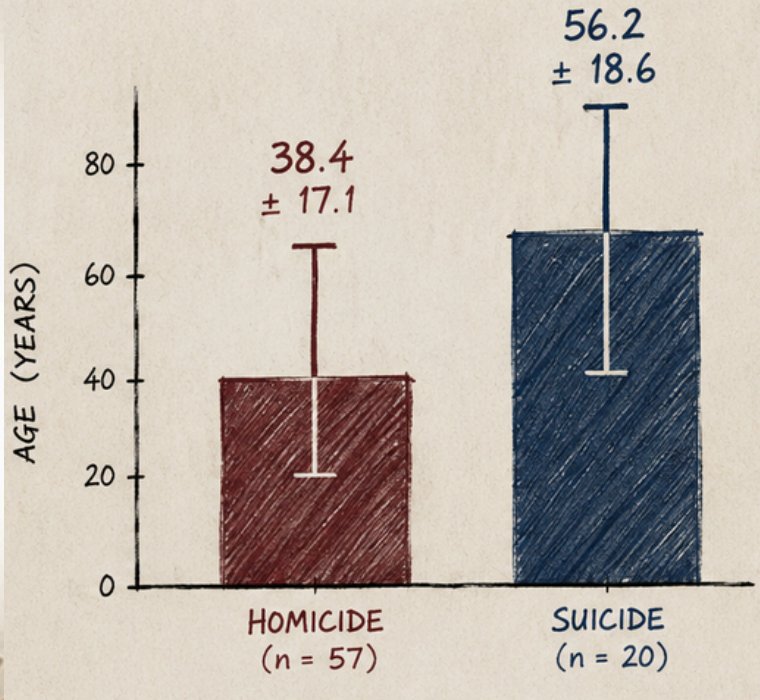
The majority of both homicide and suicide victims were male.



Male-to-female ratio:
Homicide = 4.2 : 1 Suicide = 5.7 : 1

AGE DISTRIBUTION

Suicide victims were significantly older than homicide victims.

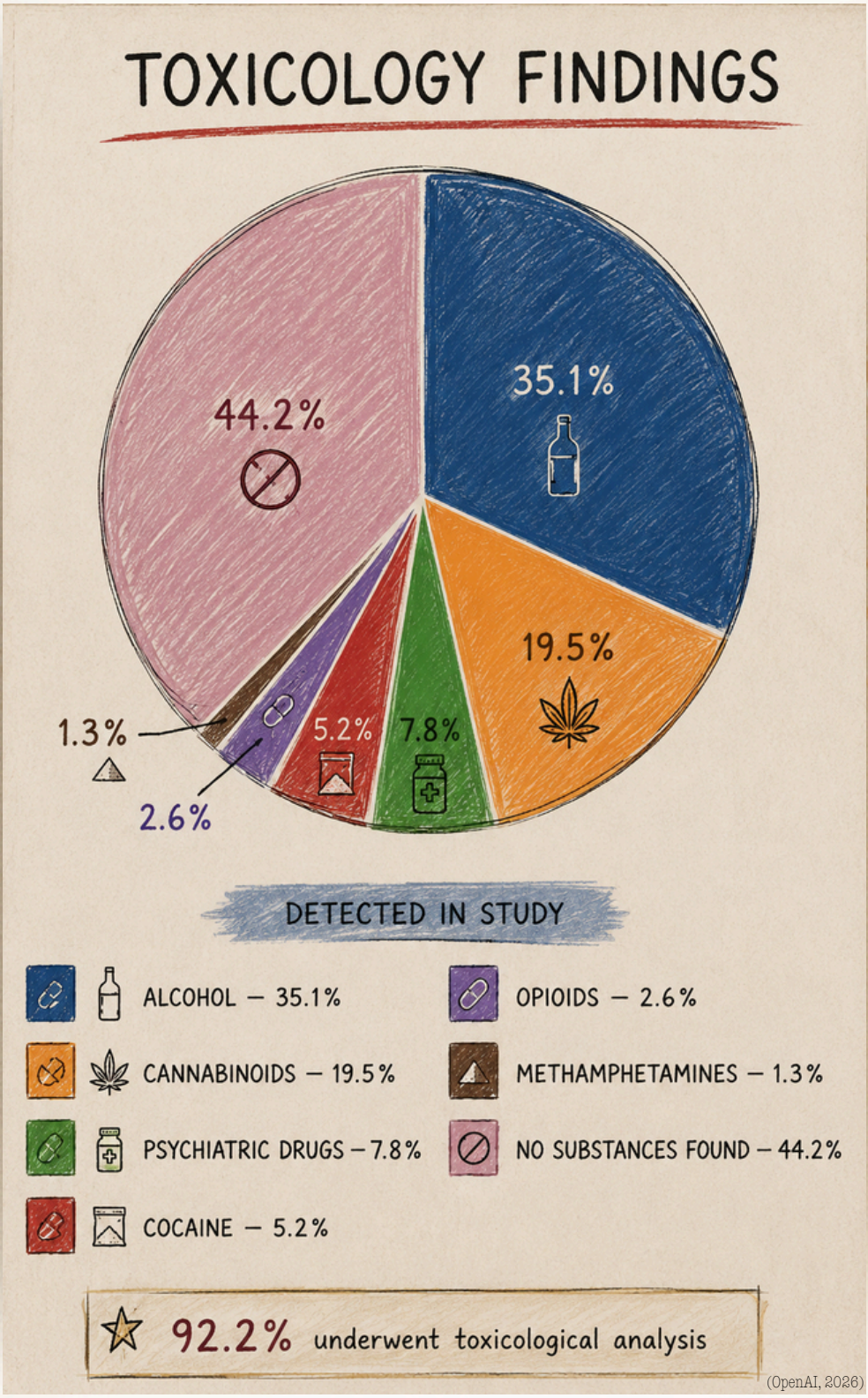


A younger age in a sharp force death may be a predictor of a homicidal manner of death.

(OpenAI, 2026)

Clue #4 - Alcohol

The victim's bloodstream may tell part of the story



Alcohol was more commonly observed in homicide victims, supporting the link between alcohol and violent encounters.

Psychiatric medication was more commonly observed in suicides, potentially relating to underlying mental health conditions

Clue #5 - Additional evidence

Signs of struggle - such as blunt force injuries, torn clothing and cartilage/bone damage - were also commonly observed in homicides.

Putting the pieces together

Wounds + Scene + Toxicology + Clothing + Witnesses



The bigger picture

Forensic science is not always straightforward. The researchers emphasise that no single injury can determine whether a death was homicidal or suicidal. You need to examine the entire picture by combining the wound characteristics with toxicology reports, clothing examinations, witness information and scene investigations.

Every knife wound tells part of a story. When these clues are interpreted together, they help forensic pathologists reconstruct the final moments of a person's life. Beyond solving individual cases, studies like this improve the accuracy of death investigations, strengthen the criminal justice system and deepen our understanding of patterns of violence in society.

References:

Lupi Manso, N., Ribeiro, I.P. & Inácio, A.R. 2021. Sharp Force Fatalities: Differentiating Homicide from Suicide Through a Retrospective Review (2012–2019) of Autopsy Findings in Lisbon (Portugal). Forensic Science International. 327:110959. DOI: 10.1016/j.forsciint.2021.110959.

OpenAI. 2026. ChatGPT response to the prompt: "Create a hand-drawn infographic" [Large language model]. Available: ChatGPT [2026, August 2]