



Pathology & Biology Section – 2005

G80 A Shot In the Dark? Investigating Accidental Gunshot Wounds

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The goal of this presentation is to provide a general review, using a case study, of proper investigation of lethal gunshot wounds and, in particular, recognition of the importance of scene investigation and firearms function testing in gunshot wound deaths. In addition, attendees will learn that a particular weapon (Tokarev CZ52) has a tendency, when dropped, to accidentally discharge due to a defective hammer drop safety.

This presentation will impact the forensic community and/or humanity by reviewing the overall investigation of a gunshot wound fatality with special attention to scene investigation, firearms examination, and reconstruction to allow for better recognition of manner of death in fatal cases. Proper death classification's societal benefits are obvious, allowing insurance payments to be made or withheld where appropriate, and criminal prosecutions to proceed if indicated.

Most lethal gunshot wounds are suicides or homicides. True accidental gunshot fatalities are rare, particularly when the misnomer of "hunting accidents" with firearms is excluded. With such a paucity of actual deaths due to accidental gunshot wounds, an almost imperceptible bias against recognition of such cases may develop.

Using the case study of the death of a 39-year-old male National Guardsman, the steps of a thorough case investigation, including scene investigation and reconstruction, are reviewed. Through processing of the scene in the case study, a gouge was recognized on the floor, near the body. This represented the impact point of the hammer mechanism on the floor, indicating that an accidental discharge was a real possibility.

The weapon employed should be examined, if possible, in all firearms deaths, particularly for function testing. In the presented fatality, the weapon employed was a Czech 7.62 mm caliber Tokarev (CZ52) pistol. The manufacturer of the pistol, Century International Arms, has issued a recall warning due to a defective hammer drop safety. Inspected weapons, recognized by a "Z" mark on the left side of the trigger guard, indicate the weapon has been "inspected to ensure proper operation in order to avoid grave bodily injury and/or property damage."

On function testing, the decedent's weapon was found to be functional with a trigger pull of 7 +/- ¼ pounds in single action mode. The holster was soiled with scattered gunpowder particles. Comparison of the flooring from the scene and the gun showed the slide and hammer had indeed caused the gouge. Video recorded re-enactment showed the gun would regularly discharge when dropped in a similar manner.

Using the location of the decedent's wounds in combination with the gouge in the floor at the scene, a reconstruction of the decedent's death proved consistent with the history of the victim having accidentally dropped the gun, resulting in his death.

Forensic pathology is not limited to the physical examination of a body. Utilizing available resources, including firearms examination and scene investigation, the medical examiner's analysis of a fatality is enhanced, hopefully ensuring proper classification of deaths.

Gunshot Wounds, Accident, Safety