



D4 Fatal Wounds Sustained From Falling Bullets: Maintaining a High Index of Suspicion in a Forensic Setting

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After attending this presentation, attendees will recognize the risk factors and fatal wounding potential of falling bullets.

This presentation will impact the forensic science community by showing how celebratory gunfire poses a unique challenge as the investigative and medical community must be made aware of the wounding potential of the falling bullets. We will present two cases of fatal celebratory gunfire injury on New Year's Eve in Miami-Dade, FL.

Case 1: A 69-year-old man collapsed at an outdoor party and was brought into the hospital in cardiac arrest. He had a history of hypertension and was prescribed lisinopril. The emergency room physician certified the death as consistent with hypertensive cardiovascular disease. During an autopsy following postmortem tissue procurement, massive left hemothorax was identified and a fully jacketed projectile was retrieved from the left ventricle. A previously missed entrance gunshot wound was identified in the posterior triangle region of the neck. The bullet lacerated the aorta and heart.

Case 2: A witness saw a 35-year-old man fall down and have seizure-like activity while outside on New Year's Eve. Emergency medical services were called and noted a wound to the top of the head resembling a gunshot wound. At autopsy, an entrance gunshot wound was found at the top of the head with penetrating injury to the parietal region of the brain with a depth of one inch. A copper-jacketed bullet was recovered from the brain.

Fatal celebratory gunfire injury is an uncommon reported event in the continental United States. Cases are predominately documented from the Middle East, Southeast Asia and a rare case series from Puerto Rico regions. Celebratory gunfire injury can be defined as unintentional injury from gunfire into the air. In the American literature, holidays such as New Year's Eve and Independence Day pose as a risk factor for this type of occurrence and a high index of suspicion to recognize such injury is required during such events. Celebratory gunfire fired from both handguns and rifles can reach a minimum velocity required to penetrate skin and bone producing fatal injury. In terms of inflicting fatal wounds, the head and shoulder are most likely to be associated with deaths from celebratory gunfire; non-fatal injuries are mostly seen in the extremities. In the series from Puerto Rico, as compared to non-celebratory gunshot wounds occurring during the same time period, women and children were more likely to be injured by falling bullets. This case report illustrates that fatal gunfire injuries sustained from falling bullets may pose as a mimic to sudden natural deaths especially in patients with prior medical history.

Falling Bullet, Homicide, Gunfire