



H145 Radically Invasive Projectile (R.I.P.) Ammunition: The Projectile With No Boundaries

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Learning Overview: After attending this presentation, attendees will have a greater understanding of R.I.P. ammunition and its potential to create a unique pattern of injury. Attendees will also have insight into the wound tracts that the projectile fragments may take by learning the ballistics of the frangible projectile.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing information regarding frangible projectiles and, more specifically, the possible extent of injury with R.I.P. ammunition. This presentation will also impact the clinical community, specifically emergency department and trauma health care providers, by improving their understanding of the potential wound tracts to guide informed medical care decisions.

The R.I.P. ammunition, a newly designed frangible bullet marketed to users of handguns as “the last round you’ll ever need,” is becoming an increasingly popular choice for self-defense rounds.¹ This type of ammunition, from G2 Research, is composed of a base with eight trocars that are intended to fragment upon impact, creating nine individual wound tracts with a radial dispersion.² This may create difficulties for first responders, clinicians, and forensic pathologists as the trajectory is different from that anticipated for the main projectile or base. In addition, break-up of the projectile prior to entry may result in more than one entrance wound from a single projectile. The fragmented projectile increases the number of internal injuries, resulting in the need to document and follow several wound tracks and recover multiple small retained fragments.^{1,3} If the forensic pathologist or clinician does not have a good understanding of the ballistics of this ammunition, appropriate documentation, medical care, and projectile recovery may be missed. Few case reports have been published on R.I.P. rounds and may be overlooked by the forensic community as these publications are predominantly in the trauma and emergency medicine literature.³⁻⁵

Six cases in which the decedent had penetrating and/or perforating gunshot wounds from R.I.P. ammunition are presented. Five of the six cases were fatal, with one decedent being remotely shot by an R.I.P. ammunition round. In this latter case, the decedent died of other acute multiple gunshot wounds, thus disproving the marketing motto for this type of projectile. In all six cases, many radio-opaque bullet fragments were seen on postmortem radiographs using a LODOX® scanner. During the autopsy, several fragments were recovered from each decedent and preserved as evidence.

The R.I.P. ammunition used in these cases provides a challenge for forensic pathologists. Postmortem imaging can be extremely useful in identifying the location of each retained trocar and the base. Understanding the ballistics of the R.I.P. ammunition will assist in accurately identifying multiple wound tracts, trajectories, and projectile recovery.

Reference(s):

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3. Katheryn Iverson et al. New fragmenting bullet leads to unexpected injury pattern: A case report involving the Radically Invasive Projectile. *Trauma*, vol. 21(1) (2019): 73-76, <https://doi.org/10.1177/1460408618759365>.
4. Lynn Hakki et al. Effects of a fragmenting handgun bullet: Considerations for trauma care providers. *Injury* (2019), <https://doi.org/10.1016/j.injury.2019.01.033>.
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Frangible Projectile, Gunshot Wound, Forensic Pathology