

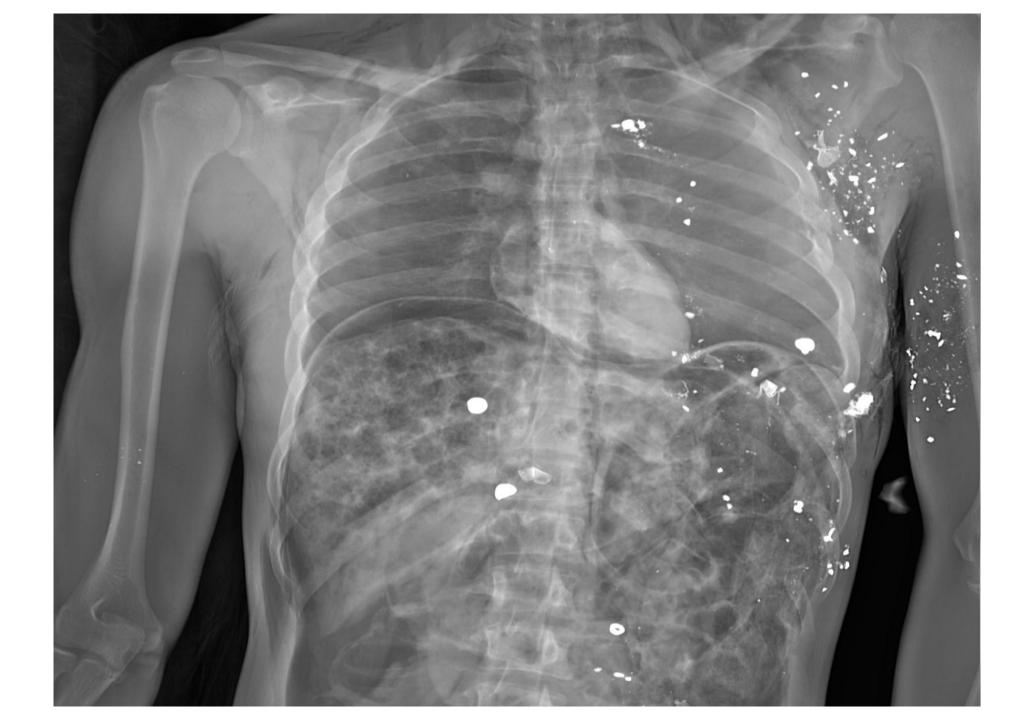
Case #114

NAME Educational Activities Committee

Case provided by:

Dr. Fabiola Righi and Dr. Melinda Flores Southwestern Institute of Forensic Sciences in Dallas, TX

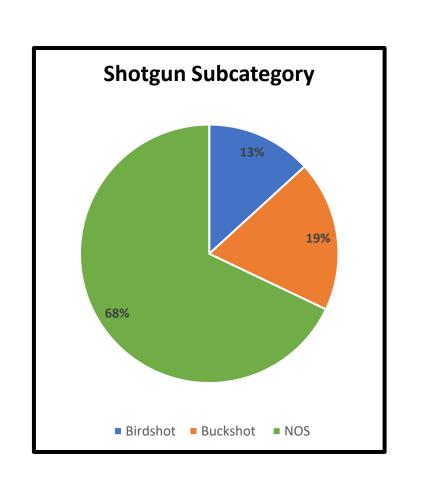


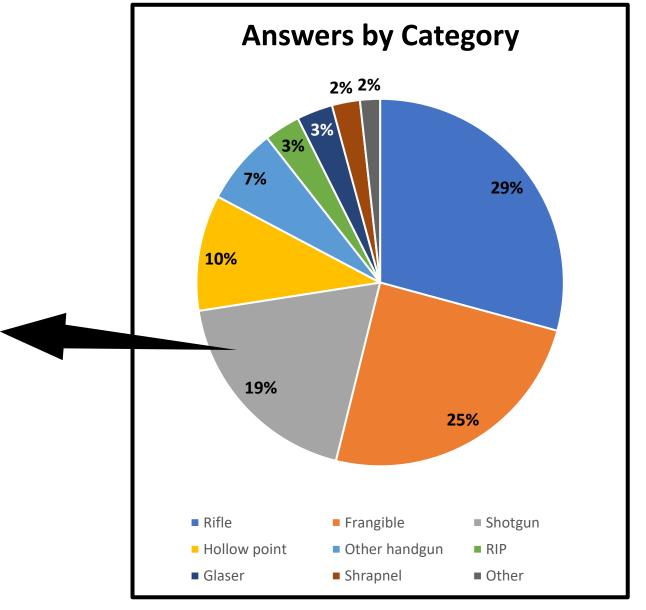


1. The decedent is a 25-year-old male, who was involved in an altercation and shot multiple times. All the recovered projectiles where consistent with the same type of ammunition.
Which type of ammunition is most consistent with the radiographic findings?
FREE TEXT ANSWER!

Word Cloud

```
metal jacketed medium caliber semi jacketed
   Hallow Point
   High power rifle high-velocity high-velocity rifle Buck shot
   caliber frangible ammunition buckshot high velocity
         rifle round ammunition rounds High velocity rifle
 bullet Frangible Hollow point
      Birdshot left Shotgun RIP Rifle jacketed Soft Point
  Glazer lead Frangible bullets ammo 9mm fragments
                                                    mm
Shot gun Pellets
                 cartridges bird shot handgun ammunition
  Glaser handgun
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Answer...

Frangible ammunition (24.6% of responses)

This is an example of a radiograph on a case where frangible ammunition was used.

Instead of the solid core seen with a traditional projectile, frangible projectiles are made from composites of hybrid metal powders or alloys that are either pressed together at high pressure or held together by a binding agent. As opposed to most handgun ammunition, which will expand or otherwise deform, frangible projectiles will shatter and disintegrate into fragments upon impact with the target.

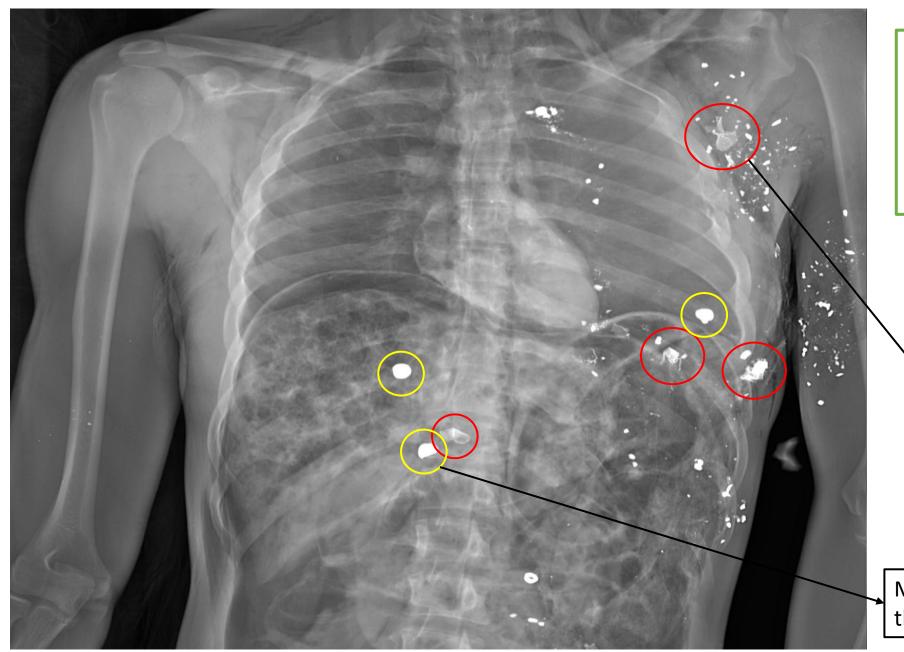
These projectiles were designed to prevent ricochet and over penetration of rounds and are often used in training (such as with steel target shooting), in close-quarter situations or in crowded urban environments, in order to prevent collateral damage and enhance safety of bystanders.

While available in both pistol and rifle cartridges, frangible rifle rounds are much less commonly seen, due to the inherently high velocity of rifles causing inconsistent performance with these projectiles, and issues with early fragmentation and jamming in the rifle.



Representative recovered projectiles with varying levels of fragmentation and associated jacket





Shout out to this description!

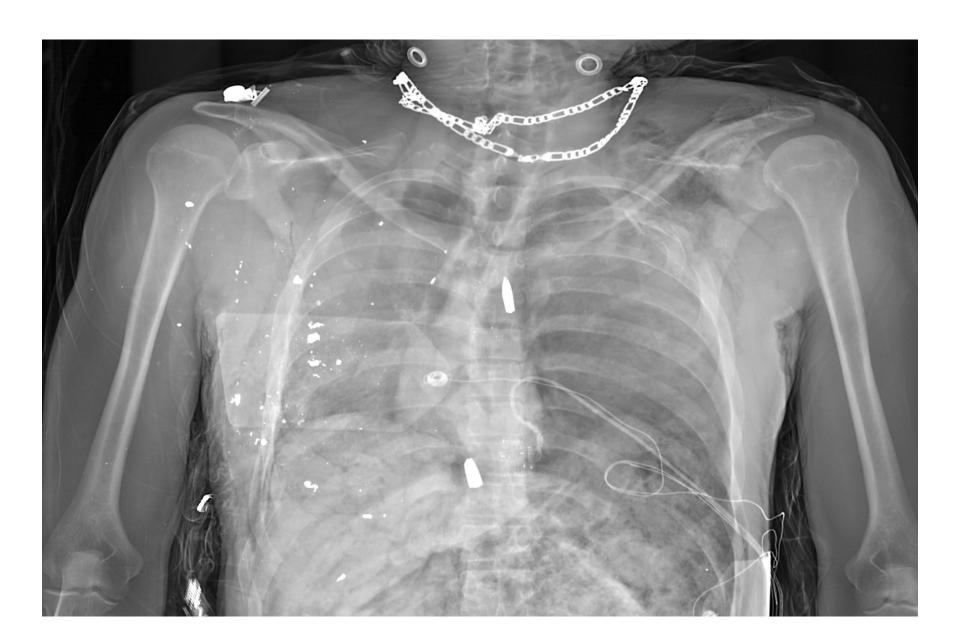
"Frangible ammunition, fragmentation is irregular and fine, and aligns with sintered bullets striking bone, while soft tissue (abdomen) has led to minimal projectile break-up"

"Mushroomed" or expanded projectile jackets (red)

More intact projectiles within the soft tissue (yellow)

Example radiographs of other common answers

Rifle "lead snowstorm" Radiograph



RIP Radiograph



Shotgun Radiographs





Buckshot Birdshot

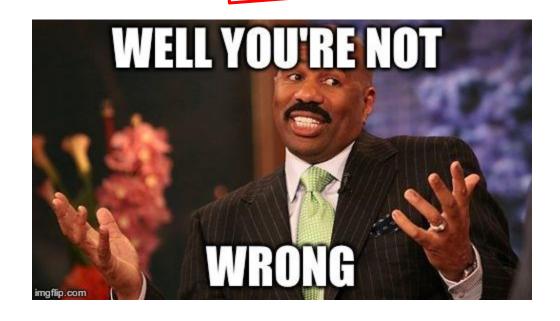
Honorable mentions

"Projectiles from an exploding decorated Christmas tree or ammunition from a high-velocity fire-arm"



Image courtesy of Google Gemini AI (LOL)

"Deadly"



Bonus X-ray — Spiderman





REFERENCES

- 1. Di Maio, V.J.M. (2016) Gunshot wounds: Practical aspects of firearms, Ballistics, and forensic techniques. Boca Raton: CRC Press.
- 2. https://ammo.com/bullet-type/frangible
- 3. https://www.actiontarget.com/what-is-frangible-ammo/
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