



Pathology/Biology Section - 2013

G26 The Use of Several Different Weapons and Ammunition in Order to Make Police and Forensic Investigations Very Difficult: A Specific French Island Behavior That Continues to Grow

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The goal of this presentation is to show forensic and ballistics difficulties and how to specify characteristics when multiple gunshots occur.

This presentation will impact the forensic science community by highlighting an innovative methodology that associates forensic medical examiners and ballisticians in crime cases with multiple different weapons, ammunitions, and shooters.

Currently in France, when mobsters decide to kill someone in a context of conflicts between gangs, the current most popular method is to use multiple people with several types of weapons and ammunitions.

The goal of this presentation is to demonstrate the value and the current need of multidisciplinary work involving forensic and ballisticians during crime scene examination, autopsy, and sample tissues' microscopic analysis.

As an example, this study reviewed cases that happened in the French territory of Corsica, which is known for its passion for weapons and its code of honor. Corsica has a unique weapon ownership rate in France. One in 54 inhabitants own handguns which represents a rate ten times higher than ownership in Paris and numbering more than 30,000 weapons legally by only 280,000 inhabitants. Indeed, Corsica has been one of the deadliest regions in Europe since 1995. There were:

- An average of 32 homicides or attempted homicides per year, three times more than the French average (11.7 versus 4.1)
- In 2007, the homicide rate was 7/100,000 against 2.9/100,000 in the rest of France and even 9/100,000 in 2009.

The perpetrators of these attacks have adapted to advances in forensics and ballistics. Now, usually, homicides are carried out by several people using various weapons, several types of ammunition and shooting distances, and different firing angles. Shortly afterward all weapons are found in a burned vehicle.

These methods are intended to delete all traces of DNA (criminals and accomplices) and to prevent weapons from being traced back to other crimes. But these actions are also intended to prevent ballisticians from doing their work (identification of weapons, comparison shots, etc.).

In addition, for forensic pathologists, the multiplicity of lesions and shooting greatly complicates the determination of trajectories, firing angles, skin distances of shots, and, therefore, the position of shooters in relation to the victim.

Different cases were reviewed and studied in a collegial collaboration including forensic pathologists, ballistics experts, investigators, etc. The cases detailed the different types of weapons, various calibers, and gauges that were used that combine handguns (9mm, essentially), Kalashnikov, and shotguns firing buckshot. A summary is provided of the various skin and organic lesions found during the external examination and the autopsy. The projectiles were recovered and examined immediately by the Laboratory of Forensic Science ballisticians.

In a second step, in the laboratory (police department), the clothes were analyzed and firing tests were conducted to determine the skin distances and the firing angles. Then, assumptions are developed about positions of the perpetrators and victim during the crime scene. These assumptions were then validated later by a reconstruction of the crime scene.

This presentation is a practical application of an innovative methodology proposed in France in recent years, which is more and more appreciated by the judges, and which associates medical examiners and ballisticians working in forensic service (police department).

Homicide, Weapons, Multidisciplinary