G46 The Ability to Shoot Back: Review of Multiple Suicidal Gunshot Wounds to the Chest

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The goal of this presentation is to illustrate three cases of multiple gunshot wound suicides involving seemingly incapacitating injuries on the initial attempt with a firearm with the ability to follow-up with a second gunshot.

This presentation will impact the forensic science community by illustrating the ability to survive extensive and devastating damage caused from an initial gunshot wound, and the potential for physical activity to inflict additional gunshots with a firearm.

Multiple gunshot wound suicides are encountered infrequently but are well documented in forensic pathology. The literature covers a range of unusual circumstances and settings that have involved common target sites and the use of multiple firearms. The cases are often challenging to law enforcement personnel and to the pathologist.

Suicides involving firearms are generally lethal and certain vital regions of the body are targeted for rapid incapacitation. These areas are physiologically necessary to maintain central nervous system function. The most common sites are gunshots to the head causing direct disruption of cerebral tissue, and gunshots to the chest causing cerebral hypoperfusion and hypoxia from massive blood loss from the heart and major blood vessels. The possibility of physical activity after sustaining massive damage is crucial in the reconstruction of shootings involving more than one gunshot wound.

Materials and Methods: Three cases of multiple suicidal gunshot wounds to the chest are presented. All three cases involve Caucasian males ranging in age from 40 to 87 years with two self inflected gunshot wounds to the chest region. The investigative report and scene photographs are reviewed for type and caliber of firearm and the autopsy report and photographs are reviewed for bullet injury profiles.

Results: The first case (87-year-old) revealed two contact penetrating gunshot wounds to the left chest with one bullet causing injury of the left lower lobe of lung and the second bullet perforating the thoracic aorta and heart. Associated injuries included a left-sided 400ml hemothorax, 200ml of hemopericardium and periaortic hematoma. The firearm was a .38 special revolver.

The second case (40-year-old) revealed one contact penetrating gunshot wound to the right chest with bullet injury to the middle and lower lobes of the right lung and the liver and one contact perforating gunshot wound to the left chest with bullet injury to the left lung including the pulmonary artery and vein. Associated injuries included 1,200ml bilateral hemothorax. The firearm was a 45-caliber semiautomatic handgun.

The third case (75-year-old) revealed two contact penetrating gunshot wounds to the midline chest with one bullet causing injury to the right lung, heart, vena cava, and aorta and the other bullet causing injury to the liver, thoracic spine, and descending aorta. Associated injuries included a 2,000ml right hemothorax, thoracic spinal cord subdural and subarachnoid hemorrhages, and a 200ml hemoperitoneum. The firearm was a 9mm semi-automatic handgun.

Conclusions: Multiple gunshot wound suicides can help elucidate the potential for meaningful physical activity after sustaining catastrophic injuries to vital organs. These cases can help law enforcement and forensic personnel understand the amount of time that can elapse from wound to loss of cerebral function and the ability of an individual to perform meaningful physical activity. The cases presented here highlight the extraordinary human capacity and a desertion of the primal nature for survival.

Suicide, Firearm, Multiple Wounds

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