



## Pathology Biology Section – 2011

### G77 Suicide by Table Saw — A Slice of Interpretation

Jeffrey Racette, MD\*, Baiyang Xu, MD, Todd M. Luckasevic, DO, Allegheny County Medical Examiner Office, 1520 Penn Avenue, Pittsburgh, PA 15222; and Abdulrezak M. Shakir, MD, Allegheny County and Karl E. Williams, MD, Office of the Medical Examiner - Allegheny County, 542 Fourth Avenue, Pittsburgh, PA 15219

The goal of this presentation is to illustrate an unusual means of suicide with a home radial arm circular table saw.

This presentation will impact the forensic science community by illustrating the need for close collaboration between the forensic pathologist and the scene investigators (in combination with careful photography) to elucidate the sequence of events and to rule out the involvement of other individuals in unusual cases involving violent, non- firearm related, means.

**Introduction:** Suicide represents a common manner of death in the United States. A painful means (with or without the expectation of a rapid loss of consciousness) are uncommon. The use of a electrical saws for suicidal purposes is documented in the literature, but remains a very rare event. The use of violent means of suicide is even more uncommon in individuals with no significant prior history of psychological disorder(s).

**Case Presentation:** The subject of this case is a 50-year-old Caucasian male who became recently depressed due to debt problems. The man and his wife had discussed the possibility of dying together in a murder-suicide. It is in question whether the wife reported a domestic assault on the same morning which she managed to escape from her husband, before calling the police. The decedent was found dead in his garage shortly thereafter on the morning of November 24, 2009.

The investigation of the scene revealed a plugged in table saw. The body was lying on a large pool of blood about five feet away from the table saw. The walls of the garage were extensively covered with blood spatter in a pattern of arterial spray. The table saw itself had been overturned and had blood on both the saw blade, and on the upper and lower surfaces of the saw.

The autopsy on the decedent noted an oblique, Y-shaped incised wound in the right side of his neck. The wound was located on the superior anterolateral aspect of the neck, beneath the right mandible and measured 14 cm in total length, 0.4 cm in width, and 3.5 cm in maximal depth. The edges of the wound are abraded along the superior margin and smooth along the inferior margin. The wound transected the right jugular vein and the right external carotid artery and penetrates into the right sternocleidomastoid muscle. The cause of death was exsanguinations due to the incised wound of the neck. Postmortem toxicology study was negative.

**Discussion:** Investigation was emphasis on ruled out the wife or others might have been involved in the death of her husband due to the initial findings at the scene, the absence of a suicide note and the unusual means used. Further interview of the wife revealed that decedent and his wife had a discussion of ending their own lives with a murder-suicide fashion. The 6-14 inch table circular saw used in this case had double protective features to prevent self injury. Further study indicated there is the possibility that the saw can be used by self to produce the similar injury as the decedent sustained. It can also be explained that people keep consciousness and moving their bodies within short of time after sudden loss of large amount of blood.

**Conclusions:** Suicide itself is much more common in individuals with long standing psychological problems, including bipolar mood disorders, depression, and schizophrenia. Violent means of suicide have been more closely associated with bipolar disorders with tendency towards self mutilating behavior. A differential thought process must be considered to interpret the pattern of events surrounding the scene of a death by violent means. Cooperation between the forensic pathologists, the police and crime scene investigators made it possible to reconstruct the unusual situation and to exonerate a third party.

**Suicide, Forensic Pathology, Table Saw**