

## Pathology/Biology Section - 2015

## H63 A Bizarre Way to Kill the Ex-Wife: Two Knives Buried in the Chest, Two Additional Knives, and a Screwdriver Implanted in the Thorax

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After attending this presentation, attendees will better understand lesional pattern caused by a combination of sharp and blunt weapons used in domestic violence. This presentation also highlights the importance of a complete autopsy in order to accurately determine the cause and manner of death.

This presentation will impact the forensic science community by applying an *in situ*, step-by-step, dissection technique in order to preserve, observe, and evaluate penetrating injuries. Furthermore, emphasis is given to the fact that the internal examination often adds relevant and unexpected data, for example, to what was thought to be a clarified and undoubted homicide. This case should also alert the forensic science community to the different forms of domestic violence — sometimes brutal and bizarre and often unexpected.

The body of a 47-year-old woman, divorced and living with her son, was found inside their new house with multiple cuts and stab wounds. This was following one of her ex-husband's occasional visits, which was intended to assist her in house-hold work. Two knives and a screwdriver were found *in situ*, penetrating the front of the chest.

Due to the multiplicity of the injuries and the *in situ* position of the weapons, a different dissection technique was adopted in order to preserve and interpret each path, particularly the stab wounds. The neck incision was made in such a way that the original injuries were preserved and the internal examination of the thorax was performed while the weapons, visible externally, were still *in situ* for as long as possible.

During the autopsy, the external examination showed multiple injuries of different types (cut/stab wounds, blunt and sharp-blunt) in the neck and thorax which revealed extreme violence. The neck injuries were extensive and difficult to describe because of the massive destruction of superficial and deep anatomical structures. Internally, it was confirmed that the thorax was penetrated by the screwdriver and the two knife blades which where completely inside the thoracic cavity. Surprisingly, when the thorax was opened, there were two more knives inside, one with a serrated blade and a clean edge and one embedded in the left lung.

All the injuries were assessed, the paths of the blades were described, and a comparison between the injuries and the shapes of blades was made in order to determine how those injuries were inflicted.

This case highlights how a different approach to the autopsy technique would enhance the interpretation of injury patterns, especially when multiple weapons are used in combination. It is clear that, despite the importance of the information collected in the external examination, the opening of the corpse provided unexpected findings even regarding the number of weapons. It is interesting to note that even though multiple weapons were used in this case, none of them penetrated the heart and the cause of death was determined as hemorrhagic shock due to a combination of multiple sharp and blunt trauma.

Multiple Knives, Screwdriver and Knives In Situ, Stab and Sharp Blunt Injuries