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**Criminal gunshot wound and iatrogenic tension pneumothorax detected by post-mortem computed tomography.**

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**Abstract:**

Post-mortem imaging at autopsy is gradually increasing in popularity among forensic practitioners. The objective of the present paper was to demonstrate that it is essential to survey the cadaver using computed tomography (CT) before autopsy. This case report presents an iatrogenic tension pneumothorax caused by left subclavian vein puncture undertaken during treatment for a gunshot-related wound. The victim, a 64-year-old woman, was shot by her husband at home, and transferred to the hospital emergency unit. Before surgical procedures were carried out, left subclavian vein puncture was performed; however, during the operation, the victim experienced sudden cardiac arrest. Subsequent intensive resuscitation was unsuccessful. The clinical cause of death was recorded as traumatic shock caused by the gunshot injury. However, before the legal autopsy took place, CT clarified the existence of tension pneumothorax not on the same side as the gunshot wound, but on the side of the iatrogenic subclavian vein puncture. Because of this information gained prior to legal dissection, a typical dissection procedure for tension pneumothorax could be performed. Post-mortem imaging prior to regular dissection is essential as an adjunct diagnostic tool.