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## COMUNICAÇÃO ORAL 15

### The value of post-mortem imaging in the context of medico-legal autopsies

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#### Resumo

**Introduction:** Forensic imaging is an emergent area of the forensic sciences, in that it can constitute an important ancillary exam to the classic medico-legal autopsy or even an alternative to its execution in certain situations, namely through a virtopsy [1,2]. **Objectives:** Here we aim to provide a brief review of the most common imagiology methods and to present two case-reports in which post-mortem imaging would have enabled a more complete case study. **Methods:** Case-Reports presentation. **Results:** First case report is of a 62-year-old male with prior diagnosis of “cancer”, depression and previous suicide attempts who jumped from the 3rd floor, falling about 11 meters, dying on impact. The autopsy, which was conducted two days after the victim's death, revealed cranio-meningo-encephalic, vertebro-meningo-medullary and thoraco-abdomino-pelvic traumatic lesions and a hemopneumopericardium. In this particular case, forensic imaging (radiography and/or CT scan) would have aided in finding bone lesions without the need to access difficult areas, such as the vertebral column, and in the detection and characterization of pneumopericardium. The second

case relates to a 43-year-old female smoker who presented with sudden hemoptysis. The autopsy, which was conducted one day after the victim's death, revealed a right pneumothorax, suspected after the identification of subcutaneous emphysema, right intercostal spaces under tension and a lowered right hemidiaphragm, a primary pulmonary lesion and meningeal metastasis. In this case, imaging would permit the prior diagnosis and classification of a pneumothorax, allowing for autopsy technique adjustment, and for cancer staging, possibly facilitating a more precise histologic specimen collection. **Conclusions:** Forensic imagiologic study represents a natural extension to the conventional medico-legal autopsy, enabling data collection which supports a certain diagnosis and autopsy guidance, being most useful if done before the autopsy. [3] Despite the expenses incurred by the use of these techniques, they would enable a quicker and more reliable documentation of injuries, which would also allow a more lesion-oriented autopsy technique, while also assuring a safer procedure for the pathologist, particularly in the presence of blade fragments or ballistic foreign bodies.

**Keywords:** post-mortem imaging; conventional radiography; post-mortem computed tomography; PMCT-angiography; post-mortem MRI.

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