

## A Novel Study Contrasting Traditional Autopsy with Post-Mortem Computed Tomography in Falls Leading to Death

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**Abstract :** Background: As an alternative to the traditional autopsy, a virtual autopsy is carried out using scanning and imaging technologies, mainly post-mortem computed tomography (PMCT). This facility aims to supplement traditional autopsy results and reduce or eliminate internal dissection in subsequent autopsies. For emotional and religious reasons, the deceased's relatives have historically disapproved such interior dissection. The non-invasive, objective, and preservative PMCT is what friends and family would rather have than a traditional autopsy. Additionally, it aids in the examination of the technologies and the benefits and drawbacks of each, demonstrating the significance of contemporary imaging in the field of forensic medicine. Results: One hundred falls resulting in fatalities was analysed by the writers. Before the autopsy, each case underwent a PMCT examination using a 16-slice Multi-Slice CT spiral scanner. By using specialised software, MPR and VR reconstructions were carried out following the capture of the raw images. The accurate detection of fractures in the skull, face bones, clavicle, scapula, and vertebra was better observed in comparison to a routine autopsy. The interpretation of pneumothorax, Pneumoperitoneum, pneumocephalus, and hemosiuns are much enhanced by PMCT than traditional autopsy. Conclusion. It is useful to visualise the skeletal damage in fall from height cases using a virtual autopsy based on PMCT. So, the ideal tool in traumatising patients is a virtual autopsy based on PMCT scans. When assessing trauma victims, PMCT should be viewed as an additional helpful tool to traditional autopsy. This is because it can identify additional bone fractures in body parts that are challenging to examine during autopsy, such as posterior regions, which helps the pathologist reconstruct the victim's life and determine the cause of death.

**Keywords :** PMCT, fall from height, autopsy, fracture

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