

Was it a fatal whiplash injury or not? Clinical forensic anatomy: a key to shed light on a case

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Autopsy is the oldest method of medical investigation. Many studies underscore the need for autopsies also in the era of technical progress emphasizing the continuing discrepancies between ante-mortem and post-mortem diagnoses. The forensic pathologist (and anatomist, too) has to know in depth the anatomy and how to study it using the dissection techniques with the help of new pre and post autoptical technologies.

Forensic radiology must integrate the expertise of forensic pathologist, the challenge is to unite all disciplines by direct and intense communication. Furthermore, histology plays a fundamental role in the final diagnosis and the collection of the samples requires the correct visualization and isolation of all the supposed organ lesions.

We present a case report with a multidisciplinary method to the cadaver, about a presumed "road murder", in which the forensic clinical anatomical approach was directed to the cause and means of death.

A case of a 79 years old man victim of a frontal crash is presented. At the scene, the driver was found comatose (GCS 3) and carried to the Emergency Department. At the ED, the patient was subjected to CT scan of brain and angio CT scan, directed, in particular, to epiaortic vessels. CT scan showed a widespread ischemia of cortical and subcortical areas of parietal, occipital and cerebellar lobes; angio CT scan revealed the complete occlusion of the lumen of both vertebral arteries, at the level of the third cervical vertebra. The man died about 4 days after his admittance to the hospital. Was it a death after a whiplash injury or not? Before performing autopsy, a head and neck CT scan was carried out. Autopsy was performed 6 days later, and was carried according to a protocol for the examination of the V3 – V4 segments of the vertebral artery. Imaging first, and then autopsy, revealed completely different findings from those shown in ante mortem CT scan, that revealed the true cause of death.

Keywords

Postmortem imaging, autopsy, forensic pathology, virtopsy