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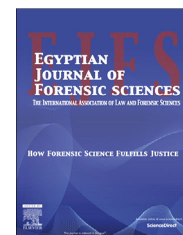

CASE REPORT

Homicide by a combination of three different asphyxial methods

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Abstract A case of death of a healthy male in his early forties is described, where three different asphyxial methods, i.e., manual strangulation, smothering and traumatic asphyxia by thoracic compression were used. The interest in the case is generated because all this three methods were carried out by a single assailant. Nail scratch abrasions were present on the cheek and neck. Internal examination revealed haemorrhagic infiltration into the muscles of the neck, contusion of the inner wall of upper respiratory tract and fracture of the hyoid bone. The autopsy findings helped the forensic pathologist in reconstructing the sequence of events and the manner in which the act was carried out. This case highlights the possibility of the involvement of a single person only, in the homicide of a healthy adult male by the application of three different asphyxial methods.

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1. Introduction

Asphyxia is a mode of death caused by interference with respiration, in which the cells fail to receive or utilize oxygen (hypoxia) together with a failure to eliminate excess of CO_2 (hypercapnia).[1,2] The classical signs of asphyxia are visceral congestion, petechiae, cyanosis and fluidity of blood, but are now considered to be nonspecific as they can occur in deaths from other causes also.[1,3] Manual strangulation, also known as throttling, is a type of asphyxial death where the perpetrator uses his hand to encircle and compress the front and side of the neck. It is a common method of homicide, most often encountered when the physical size and strength of the assailant exceeds that of the victim.[4] The usual victims are females, children, aged people and those cases where the victim may be incapacitated due to drugs or caught unaware because of the suddenness of the act.

Traumatic asphyxia is different from other types of mechanical asphyxia, as, in this case, there is mechanical fixation of the chest wall leading to restricted respiratory movements and prevention of inspiration; as compared to obstruction of air entry into the lungs that occur in other types of mechanical asphyxia.[3] It occurs in two main conditions. The chest and upper abdomen are compressed by an unyielding substance or object so that chest expansion and diaphragmatic lowering are prevented. Common examples are getting buried underneath sand, earth, coal, avalanche and entrapment beneath motor vehicles, heavy machinery.[1,3,5,6] The second type is crushing in crowds. It can also occur when one person

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kneels or sits with the whole weight of his body upon another for a protracted period.[3,6]

2. Case report

A 42-year-old male of body length 174 cm and weight 73 kg was received for autopsy at our mortuary. History revealed that the person was sleeping on the veranda of his house and found dead there, the next morning. On external examination, two abrasions of sizes 0.4×0.2 cm each were present on the glabella and the lateral part of the left upper eyelid (Fig. 1a). Two crescent-shaped abrasions of length 1 and 0.5 cm respectively with concavity towards the body midline were present on the right malar prominence (Fig. 1b). Two contusions of size 1×1 cm each were present involving the inner and outer part of the right side of upper and lower lip (Fig. 1b). Two parallel linear abrasions of length 1.5 cm and 3.5 cm respectively were present obliquely (from left to right side) 4 cm below the chin (Fig. 2). Two crescent-shaped abrasions of length 1.2 cm each were present on the lateral aspect of the left side of the neck (more or less parallel to the lower border of mandible) 4 cm below the ear lobule (Fig. 2). Multiple linear (rectangular area of the figure) and crescent-shaped abrasions with concavity towards the left side (encircled area of the figure) were present in the mid-frontal region of the neck (Fig. 2). Irregular shaped contusions of varying sizes were also present over the front and both sides of the neck. An abrasion of size approximately 5×3 cm was present on the right side of the neck (Fig. 2). There was congestion of the face, neck and right side of the chest. On dissection, there was contusion of the neck muscles; contusion of the intercostal muscles of the right side of the chest; along with fracture of 4th–7th rib along the mid clavicular line (Fig. 3). Pneumothorax and blood of around 200 ml was present on the right side. There was laceration and collapse of a portion of the anterior surface of right lungs corresponding to the rib fractures. Contusion was also seen on the surface of the epiglottis and the inner wall of larynx, trachea and oesophagus (Fig. 4a). There was a fracture of the body of the hyoid bone on the right side just medial to its junction with the cornua, along with haemorrhage of the corresponding muscles (Fig. 4b). Rest of the internal examination was unremarkable.

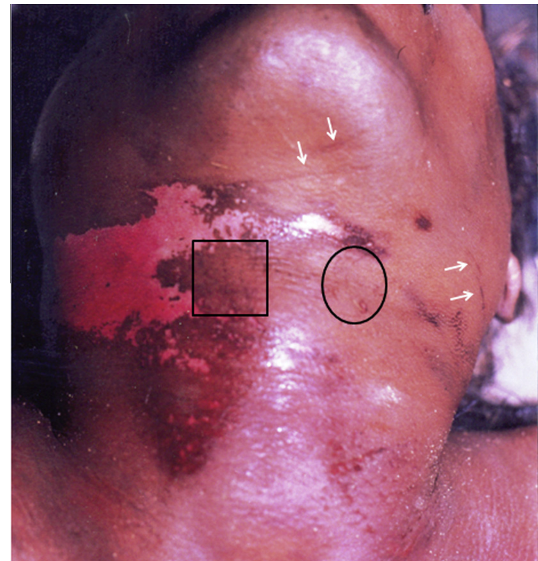

Figure 2 Arrow showing 2 crescent and 2 linear abrasions. Rectangular area showing linear scratch abrasions and circular area showing crescent-shaped abrasions.

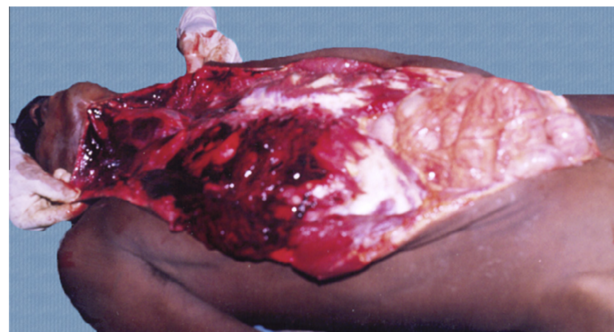

Figure 3 Extravasation of blood into the soft tissues of the neck and the intercostal muscles of the right side of the chest.

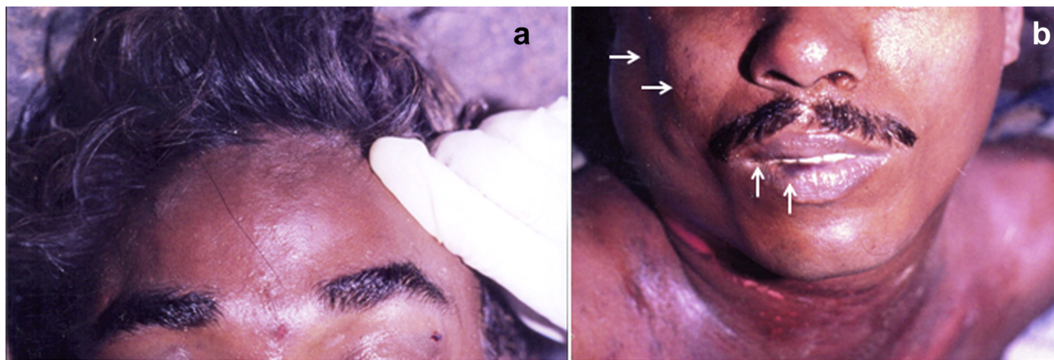

Figure 1 (a) Nail scratch abrasion on the glabella and left upper eyelid. (b) Arrow showing crescent-shaped abrasion on the right malar region of face and contusion of the lip.

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