

Homicidal Deaths-Manual Strangulation in South Eastern Nigeria from 2007-2012

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Abstract: The aim of this case study was to determine the number of deaths following manual strangulation and its consequence. A cross sectional study of all documented records of all medico-legal autopsies done within 2007-2012 was evaluated. The number of only manually strangulated autopsied was extracted from the data of the department. This was analysed using the SPSS version 16. In all the three cases distinguished itself out after autopsy as manually strangulated death despite the manipulation by the culprits that they died naturally. We found out that most of the cases reported as sudden natural deaths were actually manually strangulated. This is evidenced by both physical examination and special dissection applied on the neck region-showing ring haemorrhages and fracture of the superior hyoid bone and at times involving the thyroid structures.

Keywords: Manual strangulation, Death, Autopsy.

INTRODUCTION

Deaths by strangulation or hanging is more dangerous and violent, either to the people, investigating crime agencies/judiciary as they have the belief that fracture of hyoid bone is an indicator of homicidal suspension. However, strangulation which is a form of asphyxia death is often associated with closure of blood and respiratory pathway of the neck following external pressure on the neck. In all forms whether ligature or manual the basic cause of death follows cerebral hypoxia due to occlusion of some basic neck vessels like internal carotids, vertebral, small spinal arteries and anastomatic connections of branches of external carotids; and subclavian arteries [1, 2].

Strangulation therefore is an asphyxial in nature with closure of airways of the neck and blood vessels as a result of external pressure which could be by hands in case of manual or rope, telephone cord in terms of ligature strangulation [3-5].

The neck anatomy should be understood in this case well as the hyoid bone a horseshoe shaped bone which aids the tongue and the larynx, a product of cartilage are all forming the tracheal rings. Also within the ring are carotid vessels which transports blood to and fro the heart and lungs to the brain. These are all the structures that is often compressed though depending on the amount of pressure applied that could result to sudden deprivation of oxygen with its consequences resulting to death [6].

At times, victims survived when the pressure must not have been enough to cause death. However, such individuals come up with some certain ailment with neurological and psychiatric consequences [7, 8].

There are three cases of manual strangulated diagnosed at autopsy within the period of study.

The number of cases involving manual strangulation was extracted from departmental records of medico-legal autopsies from 2007-2012. All the data seen within this period was analysed using SPSS version 16. The detail record of the forms from investigating police was evaluated and each case attended by a careful physical examination with detailed autopsy.

CASE REPORT

Case Report 1

It is the case of a 70 years old Negroid man, who is a traditional chief-said to be a polygamous (married with three wives). Problem resulted from the children of the first wife as the noticed diversion of attention by the father thereby enhancing more attention to needs of the second and third wife's children. The former felt that of total negligence by their father led to ganging up to kill the father. It happened the fateful night with absence of electricity as source of illumination the bundle him down stairs and manually strangulated him to death under the staircase.

Case Report 2

It is the case of a 45 years old female, teacher and a known hypertensive patient- a bread winner of a family. Husband in high suspicious of infidelity with frustration of been unemployed-manually strangulated the wife while asleep; with multiple bruises on the neck and body.

Case Report 3

It is the case of a middle aged man of 55 years who had a business partner- both in combined business and obviously doing well. It all happened in a bid of sharing profit accrued resulted in misunderstanding among them. These resulted to laying ambush at night close to his end with hired (thugs) assassins who manually strangulated him at the bush where he was dragged in.

Post Mortem Examinations: In all cases detailed autopsy was done with special attention on physical examination and dissection of the neck region.

Physical examination: All the faces were bloated with multiple discrete petechial haemorrhages to the facial area, sclera and sub conjunctival. There is an impression ligature on the neck with multiple bruises, hyperaemic areas and some of these bruises could be seen prominent in cases B (Fig. 1) and C (Fig. 2) on the arms-defensive wounds and lateral compartment of the upper limb thus extending to the elbow. The bruises on the neck measure 0.3cm x 0.2cm in diameter.

Case A & B: On both lateral triangle are those hyperaemia/bruises equidistant to the temporomandibular joints.

Case C: Has multiple tinny bruises both on the anterior triangle of the neck. The average measurement of the anterior triangle of the neck is 0.5cm x 0.5cm in diameter.

A V-shaped dissection of the neck- making an incision from both behind the posterior aspect of the neck of the mastoid process and down the sternoclavicular joint layer by layer was done from facial to the respective muscle till the bony structures. The findings are as follows:

Case Report 1

There was a linear fracture of right superior hyoid bone with right sternocleidomastoid/laryngeal area ring haemorrhage. There is mild to moderate pulmonary oedema of the lungs. In Fig. 3, from the right aspect of the arrow is the speckle of the bony fracture, middle showed a ring haemorrhage and the last still remnant of the bony structure with slight haemorrhage.



Fig. 1: Impression ligature on the neck with multiple bruises in Case B



Fig. 2: Impression ligature on the neck with multiple bruises in Case C



Fi. 3: Ring haemorrhage of the bony fracture in Case A

Case Report 2

There is unilateral left side fracture of the hyoid bone with severe haemorrhage at the laryngeal area of same side. All other organs show no pathological lesion except from severe pulmonary oedema of the lungs.

Case Report 3

There is complete transection of bony structures of both sides – at level of superior hyoid bones with massive haemorrhage; and frothy haemorrhagic exudates till terminal end of the bronchi and massive pulmonary oedema.

CONCLUSION/ DISCUSSION

The compressions of the vital vessels that supply blood to the brain have been attributed to the cause of sudden death in most of the patients. In some cases the vertebral artery are resistant to direct pressure but could be occluded by severe lateral flexion or rotation of the neck [9]. Deaths result from vasovagal reflex triggered when they grabbed the deceased neck with the pressure. This is attributed to stimulation of carotid sinuses with resultant bradycardia, vasodilation, hypotension and cardiac arrest [10, 11]. Also seen are petechiae of the sclera and conjunctiva as in our study; as well as the skin around the eyes/cheeks [10]. In few individuals, pressure on carotid sinus causes minimal effects with decrease in heart rate and slight reduction in blood pressure (less than 100 mm Hg) whereas in some others there is slowing of the heart, cardiac arrhythmias from ventricular arrhythmias leading to cardiac arrest and hypotension [11]. Generally, merely turning of the neck in varying positions –high or tight collar has produced dizziness and fainting [12, 13].

The fracture of the hyoid bone seen with consequent haemorrhage indicated it is an ante-mortem event. However, care was taken in evaluating this fracture as is known in older men this kind of fracture could occur more often than in women as is due to osteoporosis. In women this is prevented by the existence of oestrogen hormones which still makes the bony structures pliable and elastic. In this case the lady is young and those hyoid or thyroid cartilages are still elastic in nature hence could not easily be fractured.

Finally, whether there is hanging or any form of strangulation-death in this form is highly considered a disgrace to both individual and family. This is due to the religious belief/faith hence the society/government has a lot to do as to ameliorate this ugly situation [14].

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