ORIGINAL RESEARCH PAPER

VOLUME-6 | ISSUE-5 | MAY - 2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 78.46

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

BRAWL IN THE BAR: ACCIDENT OR HOMICIDAL DEATH?

Forensic Medicine and Toxicology

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ABSTRACT

Consumption of alcohol frequently associated with violent and aggressive behaviour, with accidents and injuries being common in such circumstances. In cases of death following such events, postmortem examination plays a crucial role in determining the cause of death and also the various factors that could have contributed to death. Here, we present a case of a 43-year-old male, who under the influence of alcohol got into a quarrel at a bar and sustained injuries resulting in death. However, at the time of autopsy, we came across the presence of aspirated food material in the lower respiratory tract, suggestive of an alternative cause of death, instead of the anticipated mechanical injuries and its sequels.

KEYWORDS:

aspiration; head injury; alcohol; intoxication.

INTRODUCTION

Alcohol intoxication increases the risk of dying a violent death. When violent deaths combined with intake of alcohol it becomes challenging task for the forensic expert to ascertain the manner of death in such cases.[1] Alcohol is a central nervous system depressant and its medico-legal importance is due to association with changes in higher brain functions by blocking and encouraging violent behavior unnervingly related to crimes and accidents.

The influence of alcohol on the cause of death is the primary factor in a substantial number of violent deaths.[2] The incidence of alcohol positive in homicides was 39% and 32% in suicides, whereas in natural deaths it was only 7% .[3] Here we report a case of violent death of a person in an intoxicated state and there are other postmortem findings which are challenging for an autopsy surgeon in establishing a cause and manner of death.

CASE REPORT

An intoxicated 43-year-old male in the bar was involved in an altercation with three persons and received blows and kicks to his head and abdomen. After that, the victim was left lying on the ground and after 30 minutes the people in that bar made the person to sit and at that time they noticed vomit near him and was unconscious. So they shifted that patient to a nearby hospital. On arrival, the patient was declared brought dead and shifted to the mortuary for post-mortem examination.

At autopsy, we noticed deceased was moderately built with both eyes congested and cyanosis at finger nail beds. There was an abrasion of size 1 cm X 1 cm on both sides of the face, contusion on left side of neck and laceration of size 1.5cm X 0.2cm X soft tissue deep seen at right thumb. All injuries are antemortem in nature.

On internal examination, there was sub scalpal contusion and pericranial haemorrhage over left parietal eminence and subarachnoid haemorrhage present over bilateral hemispheres with the fourth ventricle bleed (Figure 1). The stomach contained around 500 grams partially digested yellow coloured food particles mixed with fluid emitting fruity odour with mucosa congested (Figure 2). The right kidney was normal and left kidney showed perinephric hematoma. There was a contusion present on right side of thoracic wall corresponding to the second and third rib. Partially digested food particles corresponding to what food materials present in the stomach was seen on both sides of primary and secondary bronchus (Figure 3). Both lungs were congested and oedematous. Viscera were sent for chemical analysis and report was found to be positive for Blood alcohol concentration of 281mg%. The final cause of death was due to the combination of asphyxia due to choking and head injury along with central nervous system depressant effects of alcohol.

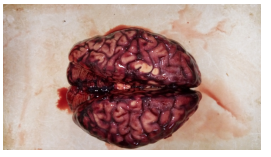

Figure 1: Subarachnoid haemorrhage present over bilateral hemispheres

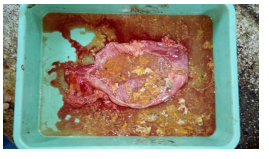

Figure 2: Partially digested yellow colored food particles mixed with fluid emitting fruity odour

Figure 3: Partially digested food particles corresponding to food materials present in the stomach was seen on primary and secondary bronchus

DISCUSSION

Alcohol contributes significantly to the morbidity and mortality of trauma patients, despite the consequences of the type of injury suffered.[4] Alcohol is the most abused drug in the world. Any drink containing from 0.5 to 95% alcohol is considered an alcoholic beverage.[5] When the drinking begins, it has an invigorating effect leading to loss of inhibition and increased sociability. With higher levels, it causes an increase in reaction time and decreases the reflex response and can lead to aggressive states, frustration and depression.[6] When blood alcohol concentration reaches more than 30 mg% there is a loss of driving ability and when it reaches around 150 to 300 mg % the person is prone for vomiting and stupor.[7] In our victim, the blood alcohol concentration was estimated at 281 mg%, which might have caused vomiting.

Inflicting injury to the head is one of the most efficient methods of homicide. Assailants more often than not select a part of the body where the maximum damage can be done with minimum effort.[8]

According to Filter ER et al.,[9] and Miyamoto S et al.,[10] there is a strong association between subarachnoid hemorrhage and relatively minor blunt force injuries to the face, head, or neck. Moreover, the degree of hemorrhage may appear striking and disproportionate to the external and internal evidence of injury. Here in our case also the assault might have looked minor for witnesses since the person was assaulted by hands and feet only but certainly, it resulted in subarachnoid hemorrhage of traumatic origin. Aspiration is the inhalation of regurgitated gastric contents, it commonly occurs in patients who have marked disturbances of consciousness such as that resulting from a drug overdose, alcohol intoxication, seizures, a massive cerebro vascular accident, traumatic brain injury or the use of anaesthetist.[11] In this case, the patient vomited due to the head injury and there was also a blunt trauma to the abdomen which gave rise to increase in abdominal pressure which caused regurgitation of gastric contents which in turn caused aspiration. Further, the alcohol intoxication in this patient resulted in diminished reflexes. Combined effect of aspiration and diminished reflexes resulted in asphyxia caused due to choking of aspirated vomited contents leads to the death of the patient. Alcohol intoxication leads to considerable harm of respiratory control following traumatic brain injury and may contribute to brain injury in intoxicated trauma victims.[12]

According to Ramsay D et al.,[13] and Filter ER et al.,[9] and Miyamoto S et al.,[10] there exists a strong association between subarachnoid hemorrhage and relatively minor blunt force injuries to face, head or neck, which was seen in our case too. In this case, the autopsy surgeon is in a tight spot to give the cause of death since there is a combination of multiple factors which contributed to causing death. Since it was an assault case one cannot give simply cause of death as asphyxia following choking of gastric contents then it gives an idea to the defendant that cause of death is accidental. Whereas it cannot be given as head injury alone since it's not a sole factor which leads to death. Based on above discussion we had given the cause of death as the combination of asphyxia due to choking of gastric contents and head injury along with central nervous system depressant effects of alcohol.

CONCLUSION

The present case was a challenging one to autopsy surgeon since there are many factors which contributed to cause of death. There are individual factors which alone individually can lead to the death of a person. So autopsy surgeon has to find a sequence of events which might have lead to the cause of death in that individual by meticulously examining the case completely and also establish the legally accepted manner of death. These are the factors which play a key role in the administration of justice in criminal cases.

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