

Psychological Autopsy: An Important Tool for Postmortem Diagnosis of Death

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Abstract

Autopsy surgeons not only deal with unnatural deaths, but also deal with a wide range of deaths from natural causes, which are of sudden, unexpected or clinically undiagnosed cases. It is pertinent for an autopsy surgeon to be aware of the causes of sudden natural death. Here is a case of sudden death due to cerebrovascular accident with suspicion of foul play is reported. The suspicion of foul play was negated by an autopsy of the dead body aided with psychological autopsy of the family of the deceased.

Keywords: Sudden death; Cerebrovascular accident; Autopsy; Psychological autopsy.

Introduction

Sudden death is now currently described as natural unexpected death occurring within 1h of new symptoms.[1] Cardiac causes are the leading causes of sudden death, followed by causes of respiratory system and central nervous system. Central nervous system causes account for 10-18% of all sudden deaths.[2] Subarachnoid hemorrhage and cerebral hemorrhage are the most frequent causes of sudden death due to Cerebra vascular accidents (CVA).[3] Here, we present a case of sudden death due to cerebrovascular accident due to a spontaneous bleed which had aroused the suspicion of foul play.

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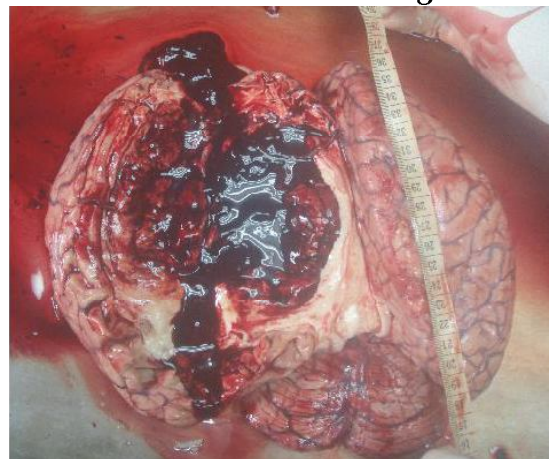
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Case Report

An adult male aged 45 years, waiting for a bus at a bus stop, fainted suddenly and was brought to the hospital. He was declared brought dead by the doctors. The family of the deceased however expressed their reservations as to the above history and they suspected some one would have pushed the old man leading to the death. An autopsy was requisitioned by the Investigating Officer.

At autopsy, deceased was an adult male poorly built and nourished. No external injuries were found over the body. Internal examination revealed, diffuse subarachnoid haemorrhage with oedema of the brain. Cut

Fig 1: Cut Section of Brain showing Cerebral Haemorrhage



section of the brain revealed haemorrhage in the basal ganglia in the left cerebral hemisphere (Fig 1). Other internal organs were unremarkable. Chemical analysis of routine viscera did not reveal evidence of any toxin. Histopathology of the cerebral hemisphere showed infiltration of the internal carotid artery by lymphocytes and neutrophils.

Further probing of the family of the deceased revealed a history of chronic hypertension and diabetes. It was also revealed that the deceased was non-compliant to the prescribed treatment by the doctor. The family members were then made aware of the complications of the chronic hypertension and non adherence to the prescribed treatment. The combination of autopsy findings and counseling allayed the fears of the family of foul play in the death of their near one.

The cause of death was opined as complications of unilateral spontaneous intracerebral haemorrhage.

Discussion

Autopsy surgeons deal with not only a wide range of unnatural cases viz., criminal, accidental and suicidal deaths, but also with a wide range of natural deaths. These sudden deaths especially, if they had occurred suddenly in apparently healthy individuals pose a great challenge to the autopsy surgeon. Many of these deaths are sudden, unexpected, clinically unexplained or obscure.[4,5] Sudden deaths due to neurological causes are not rare and frequently encountered during medicolegal work. But sometimes physical evidence found on the body may not be sufficient to conclude on the manner of death. In such cases where the manner of death is unexplained and is not clear, a psychological autopsy may assist the autopsy surgeon and the Investigating Officer in solving the deadlock.[6] It refers to assessment of the mental state of deceased person before death. It involves evaluation of the sort of persons, their personality and thought processes,

which will be required to assist the investigation.[7]

Cerebrovascular accidents (CVA) account for 10 to 20% of all sudden deaths.[8] CVA's occur predominantly in the middle and late years of life. The incidence of CVA's increases with age, thus the disability affects many people in their "golden years".[9] Subarachnoid hemorrhage and cerebral hemorrhage are the most frequent causes of sudden death due to stroke. Brainstem hemorrhage, which is the cause of respiratory and vasomotor centers dysfunction, is frequently the direct cause of sudden death caused by stroke. Cerebral edema, secondary lethal arrhythmia, myocardial infarction, pulmonary embolism, or asphyxiation by dysphagia may be indirect causes of death associated with stroke.[3]

In the present case, the victim was an old man who suddenly fainted and collapsed and was brought dead to the hospital. Even though eyewitness suggested a death due to natural diseases, the family contested against it and suspected foul play. But a medico-legal and psychological autopsy revealed the cause of death as CVA.

CVA's resulting in sudden death is a known entity, but suspicions do arise in circumstances where a person is found unconscious and unwitnessed by the family members when suspect foul play. So it is pertinent to keep in mind that psychological autopsy do has a role in routine medico-legal autopsies.

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