

Case Report

Death due to Choking in Road Accident: A Case Report

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Abstract

Choking refers to the blockage of internal airways, usually between the pharynx and the bifurcation of the trachea. It is usually due to the inhalation of a foreign body, but it can be caused by inhalation of the products of the disease (or violence) or by anatomical changes due to disease. The choking deaths are mostly accidental and commonly observed in the pediatric age group. Food related items and plastic toys are the foreign materials commonly encountered in choking. The various circumstances reported in the literature when choking occurs were while eating, playing, studying, cleaning ears and making fun. Death due to choking in road accident is very unusual occurrence though road accidents occur frequently. Here we present a case of death due to choking of seven month old boy in road accident resulted due to the unsafe and illegal transportation, ignorance of safety rules, and bad condition of the roads. The joint efforts by personnel of education, engineering, medical, law enforcement agencies are required for prevention of such deaths.

Key Words: Choking death, Road accident, Foreign material

Introduction:

Choking is the variety of asphyxia caused by an obstruction within the air passages. It is usually due to the inhalation of a foreign body, but it can be caused by inhalation of the products of the disease (or violence) or by anatomical changes due to disease. [1]

Choking can be fatal if it results in serious impairment of respiration. Choking is a leading cause of morbidity and mortality among children, especially those who are three years of age or younger. The most common objects on which children choke are food, coins, balloons, and other toys. [2] The un-witnessed deaths by choking in normal healthy child are usually referred to the hospitals as sudden and suspicious deaths. [3]

The accidental choking usually occurs during eating when food is accidentally inhaled, especially when victim is laughing or crying. [1] The other reported instances of choking were during playing, studying, cleaning ears and making fun. [1-5]

The road accidents are frequent in occurrence and a leading cause of death in India. Most of the deaths occurred during road accident were attributed to the trauma. While in rare instances, death might occur because of pathological disease and/ or some other ailment rather than trauma itself.

However, the death due to choking in road accident is very unusual in occurrence. Here we report a death of a child due to choking in road accident in which the death was supposed to be caused by some blunt trauma.

Case History:

A laborer couple along-with their two children was travelling to new work-place in a trailer of a tractor. The trailer was crowded with families of other laborers and their household belongings. The tractor met with an accident at an acute turn of the road and trailer turned upside down. Consequently, the couple's seven months boy was found by the side of road in unconscious state with the wheat flour scattered all around.

The lid-free tin box was present nearby and they also witnessed small amount of wheat flour was on face and chest region of the victim.

Prior to the aforementioned accident, the tin-box containing about five Kilograms of wheat flour was located in the trailer in close proximity to the victim boy.

They immediately transported him to the hospital without any resuscitative attempt at the crime scene due to unavailability of trained

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person. He was declared brought dead in Casualty Department of our Institute.

On detailed inquiry, the parent gave history of frequent travels in trailer along-with items required for cooking and other household belongings. Death in road accident forms the basis of medico-legal investigation in the present case and it was subjected to medico-legal autopsy by Police officer.

As per the Police official, the supposed cause of death was 'some blunt trauma'.

Autopsy Findings:

External examination showed the presence of flour over the body at places (Fig. 1) and bluish discoloration of fingers, toes and lips was evident. There was no any visible external injury over body. The internal examination did not detect any trauma to organs; but signs of asphyxia were evident.

On dissection of neck, internal airway showed wheat flour mixed with mucous, completely obstructing the larynx and trachea. (Fig. 2) The cause of death was opined as, "Asphyxia due to Choking".

Discussion:

Injuries and deaths due to road accident continue to be major public health problems in India. The deaths during road accident are routinely autopsied and contribute to large portion of autopsies conducted in India. The most commonly affected population in road accidents are poor people, as they are mostly pedestrians, cyclists, and passengers of public transports. [6]

The tractor trailer as such is not meant for the public transport, but it is a common scene in India that, the laborer families travel in the tractor trailer to work places along-with their household belongings. Most of the deaths occurred at the scene of the road accident and those occurred before victims had reached the hospital, were caused by the major trauma which was obvious and/ or detected on autopsy.

In present case, the death was supposed to be caused by some trauma during road accident, although the victim had no obvious external injury. The careful and meticulous autopsy also did not detect any external or internal trauma; but revealed choking as the actual cause of death.

The diagnosis of death due to choking in present case was based on the identification of the foreign material obstructing the internal airways with recognition of the signs of asphyxia, the circumstances and the exclusion of other possible causes of death.

Uncoordinated swallowing mechanisms in young children, inability to time swallowing and breathing, immature dentition (lack of molar teeth until 3-5 years), physical activity, the habit of exploring objects with the mouth are the risk factors involved in childhood asphyxiation due to ingestion and inhalation of foreign body. [7]

The spectrum of airway foreign bodies varies from country to country, depending on the diet and customs of the population. [8] Sinha et al [9] reported that, groundnut was the most common trachea-broncheal foreign body observed in Indian population.

In the study conducted by Jaswal et al [10], the most common type of trachea-broncheal foreign body observed below 3 years of age was food material (seeds, beans).

The hotdogs and peanuts are the most commonly aspirated foreign body in Western countries. [2, 7, 8] The inhalation of foreign material in the trachea-bronchial tree is an emergency condition with high mortality if prompt measures are not being taken at the earliest. [9] The important factors that determine the possibility of favorable outcome in choking cases are age of the affected person, level of consciousness, occurrence of crying, and characteristics of the foreign bodies. [11]

The aspirated foreign material observed in the present case was wheat flour which was very unusual to be found in choking. The release of the tin-box lid and subsequent inhalation of wheat flour by victim, while turning over of the trailer is the possible explanation for this incident. The presence of scanty wheat flour over victims' face, early and immediate removal of victim and presence of wheat flour mixed with mucous in trachea and major bronchi rules out the possibility of the death due to immersion in the wheat flour itself.

The presence of wheat flour on victim and at the scene of crime was ignored by the persons who witnessed the incident as they were unaware about choking. Even if the present choking incident would have been identified, the inhaled foreign material could not be removed by general measures.

Conclusion:

The death due to choking in road accident is an unforeseen occurrence. The unsafe and illegal transportation, ignorance of safety rules, and bad condition of the roads had resulted to the present incident of death due to choking by an unusual foreign material.

The joint efforts by personnel of education, engineering, medical, law enforcement agencies are required for

prevention of deaths and disabilities due to such transportation.

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Fig. 1: Presence of Wheat flour over Body at Places



Fig. 2: Wheat-flour mixed with mucous in Trachea

