A HUNDRED YEARS AGO

Extracted from a 1917 issue of *The Practitioner*

SUDDEN DEATH: RESPIRATORY SYSTEM

BY BERNARD H. SPILSBURY, M.B., B.CH. PATHOLOGIST TO ST MARY'S HOSPITAL, W., ETC

IT IS CUSTOMARY, for medical-legal purposes, to regard death as the result of failure in function of one of the three systems: nervous, circulatory, and respiratory. We speak of death from coma, syncope, or asphyxia. When disease has its origin in other organs of the body, death is commonly the result of these three systems. In this article, cases have been selected which illustrate some of the difficulties confronting a medical man during an examination into the cause of death related to the respiratory system.

Vomiting

One of the commoner causes of death from asphyxia is vomiting during periods of unconsciousness and regurgitation of the vomit into the air passages; it occurs sometimes under anaesthesia in cases of acute intestinal obstruction as well as in unconsciousness due to other causes, such as cerebral haemorrhage or narcotic poison. One case occurred in a man who was arrested for being drunk and incapable, who died from this condition in a police cell.

Pressure of goitre or oedema of the larynx

The pressure of a goitre or a rapidly-developing oedema of the larynx may lead to sudden asphyxia. I once obtained a specimen of angio-neurotic oedema of the larynx taken from a man who had several attacks, and who died suddenly one night in bed before a doctor could be fetched. The ary-epiglottidean folds were greatly swollen, and completely covered the inlet of the larynx.

Carbon monoxide

Acute poisoning by carbon monoxide leads to death from asphyxia. Apart from the characteristic changes in the blood, the circumstances of these deaths generally point to the cause, an escape of coal-gas. I have seen cases, however, in which the breathing of the waste gases from a motor engine running in a confined space, has caused death from carbon monoxide poisoning.

Deaths due to outbreaks of fire in houses are often the result of poisoning by carbon monoxide produced by incomplete combustion.

An infant, of 13 months, was taken from a room in which some of the furniture was on fire. The child had not been burnt or exposed to a very high temperature, but on examination it was dead; the blood was found to be half saturated with carbon monoxide.

Carbon dioxide

Deaths from carbon dioxide poisoning are very rapid, and the changes produced are slight, the only evidence of the mode of death being lividity and a dark fluid condition of the blood. Apart from explosions in mines, the cases are rare, and the circumstances of the death generally point to the cause. Thus, a man who entered a large brewer's vat, immediately after the fermenting liquor had been run off and whilst the air contained a large proportion of carbon dioxide, collapsed and died before he could be removed.

"A man who entered a large brewer's vat, immediately after the fermenting liquor had been run off and whilst the air contained a large proportion of carbon dioxide, collapsed and died before he could be removed"

Enlarged thymus gland

It has been stated that an enlarged thymus gland may cause death from asphyxia. I have never found signs of death from asphyxia in fatal cases associated with ordinary enlargement of the thymus, but only in cases in which there has been a tumour of the gland. A lymphosarcoma of the thymus, removed from a child of 2 years and 3 months, was three times the size of a very large hypertrophied thymus, and caused sudden death from asphyxia convulsions, after several similar attacks during the last 48 hours of its life; prior to that time the child appeared healthy.

In an adult, a much larger tumour may develop in the mediastinum, before pressure upon the air-passages causes death from asphyxia; occasionally, sudden death occurs in such cases. I have seen a lymphosarcoma of the mediastinum, a compact mass of growth almost ¾ lb in weight, which was removed from a man, aged 19, who was found dead in bed. He had complained of a recent cough, but was a strong, healthy individual.

A rare case

A rare case of death from asphyxia was that of a young man, who suddenly became cyanosed during the extraction of teeth, and died in about 20 minutes. He had advanced tuberculous disease of the cervical vertebrae, and a mass of tuberculous granulations formed a lining to the spinal canal. Bending of the diseased bones during the operation caused pressure upon the spinal cord deranging the nervous mechanism of respiration.

Hydrocyanic acid or cocaine

Hydrocyanic acid, one of the most rapidly fatal poisons, probably acts by paralysing the respiratory centre, and in acute cocaine poisoning the action may be similar. Injection of a strong solution of cocaine into the urethra of a man who had a false passage, caused sudden convulsions, followed by coma, and death within five minutes of the onset of the symptoms.

1868-2017
Supporting general practitioners for 149 years