







Learning objectives

- Define death.
- Define sudden death.
- Enumerate the cardiovascular causes of sudden death.
- Describe the medicolegal aspects of deaths due to cardiovascular diseases.

Somatic Death - Con't

Tripod of Life



Death

The persistent stoppage of any vital system leading to irreversible loss of function of the others, precipitating death.

Tripod of death



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Sudden death

The name sudden death is given to those deaths which are not preceded or are only preceded for a short period, say about a day or two by morbid symptoms. They are important from a Medico legal standpoint as they may raise a suspicion of foul play.

Causes of sudden death

- The causes of sudden deaths are classified as follows:
- 🔵 (1) cardiovascular
- (2) respiratory
- (3) CNS
- (4) abdominal
- (5) endocrinal
- (6) iatrogenic
- (7) miscellaneous
- (8) special causes in children and
- (9) indeterminate.

Cardiovascular Causes

- Coronary artery disease:
 - (i) atherosclerosis
 - (ii)thrombosis.
- Congenital heart disease, eg, ASD, VSD. PDA
- Valvular heart disease:
 - (i) rheumatic
 - (ii)congenital

Hypertensive heart disease

Infection:

- (i) pericarditis
- (ii) myocarditis
- (iii) endocarditis.

- Cardiac tamponade:
 - (i) ruptured myocardial infarct
 - (ii) trauma,
 - other conditions: cardiomyopathies
- Rupture of aortic aneurysm:
 - (i) atherosclerotic
 - (ii) dissecting

 It is quite possible for a person to be in apparently perfect health, but at the same time suffering from a serious disease of which he may not be aware.

- The incidence of SCD increases markedly with age regardless of sex or race but the proportion of deaths that are sudden is larger in the younger age groups.
- CHD is the most common substrate underlying SCD.

 It happens sometimes that a sudden death in connection with which there appears to be no reason for suspicion, proves on examination to be one of murder or suicide.

- In cases of sudden death. It is usually not possible to certify the cause of death from an external examination of the body.
- In all such cases, an autopsy is necessary to exclude the possibility of unnatural death escaping investigation.

- Autopsy represents the first and last opportunity to make an accurate diagnosis in SCD.
- The recommended method of investigation includes not only a protocol for examination of the heart and histological sampling, but, when necessary, for toxicology, microbiology, biochemistry, and molecular investigation.

A doctor who issues a death certificate in such a case runs the risk of being accused as an accessory to a crime and obstructing the course of justice, should the death be found eventually due to foul play.

