

SUDDEN AND UNEXPECTED NATURAL DEATH

- ◆CARDIOVASCULAR SYSTEM
- ◆RESPIRATORY SYSTEM
- ◆CENTRAL NERVOUS SYSTEM
- ◆GASTROINTESTINAL SYSTEM
- ◆SUDDEN DEATH FROM UNKNOWN CAUSES

CARDIOVASCULAR SYSTEM

- ◆Ischaemic heart disease - the insufficient supply of blood to the heart muscle.
- ◆Hypertensive heart disease - enlargement of the left ventricle and the coronary arteries are simply unable to supply the extra blood to the muscle
- ◆Aortic valve disease - and sudden death results because of the failure of the hypertrophied left ventricle to force the blood through the diseased and narrowed valve, it usually confined to males over the age of 60.
- ◆Cadiomyopathy - pathological processes affecting the heart muscle, without specifying anything in particular, e.g. Chronic alcohol use, bacterial or viral infections, amyloidosis, enlargements of heart of unknown reasons.
- ◆Ruptured aortic aneurysm - they usually arise as an atheromatous degeneration of the aortic wall. It is a common cause of sudden death in late middle-aged or elderly patients. The most common variety is bulbous swelling in the abdominal aorta.
- ◆Pulmonary embolism - it begins with thrombus formation in the deep veins of the lower legs or pelvic and prostatic plexuses. The mobile clot is termed an embolus and is conveyed in the venous system through the right heart and into the pulmonary trunk and the pulmonary arteries. The patient dies from impaired oxygen and carbon dioxide exchange in the lungs.
- ◆Other

RESPIRATORY SYSTEM

- ◆Infections - they may lead on slowly to death, but there are also a few bacterial and viral infections which can produce sudden and unexpected death in a very short time - acute haemorrhagic bronchopneumonia, florid viral infections
- ◆Pneumothorax in case of spontaneous rupture of an emphysematous bulla under the pleura. The vacuum normally present at pleural cavity is lost and there is an immediate collapse of the affected lung.

◆Asthma - it is a sudden and prolonged spasm of the smooth muscle in the walls of the bronchioles and the bronchospasm causes severe constriction of the air passages and if it is not effectively relieved can lead to a hypoxial death.

◆Other

CENTRAL NERVOUS SYSTEM

◆Cerebral haemorrhage - bleeding usually occurs either within the basal ganglia or more distally in the internal capsule, often is associated with raised blood pressure.

◆Intracranial haemorrhage - occurs outside the brain but within the meningeal layers. Subarachnoid haemorrhage could be caused by the spontaneous rupture of a small aneurysm known as a *berry aneurysm*. Also aneurysm of congenital origin or the aneurysm found at the complex of the Circle of Willis.

◆Circulatory, non-haemorrhagic causes - thrombosis usually formed in association with a localised plaque of arteriosclerosis, very rare from the thrombus formation within the cavity of the heart.

◆Epilepsy - usually in case of status epilepticus due to asphyxia if the epileptic ceases to breathe or aspirates regurgitated vomit or has an air-ways obstructed by the tongue.

◆ Other

GASTROINTESTINAL SYSTEM

◆Haemorrhage is the main event causing sudden and unexpected death.

◆Massive bleed may occur when a gastric or duodenal ulcer erodes through the submucosal tissues and into an artery lying close by.

◆Varicose and distended veins at the lower end of the oesophagus become eroded and burst (in cases of fatty changes or even cirrhosis of the liver).

SUDDEN DEATH FROM UNKNOWN CASUSES

◆There is a short list of cases where, after autopsy, toxicology, bacteriology, virology, histology, and a review of the history of the case with all the professionals concerned, no reasonable cause to be found. In these cases we must accept the situation that the cause of death is unknown. Some use the expression “the white autopsy”.