



## Pathology & Biology Section – 2004

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### G21 Too Many Causes of Death: What's the Manner?

Wendy M. Gunther, MD\*, Office of the Chief Medical Examiner and Department of Legal Medicine, Virginia Commonwealth University, 830 Southampton Avenue, Suite 100, Norfolk, VA 23510

After attending this presentation, attendees will be able to evaluate the importance of competing causes of death discovered at autopsy. Rank causes of death in a hierarchical order depending on importance to the mechanism of death. Integrate scene information, gross autopsy discoveries, histologic findings, and toxicology results to determine the hierarchy of causes of death. Relate manner of death to the most important cause of death.

This presentation will impact the forensic community and/or humanity by recalling and reviewing the importance of integrating scene information, autopsy findings, histology, and toxicology into the determination of the most important cause of death, in order to determine an accurate manner of death. Understand the likelihood of multiple converging natural diseases in the homeless and alcoholic population. Increase awareness of recognizing significant and even predominating natural disease in persons with worrisome but nonfatal injuries, which may affect determination of manner of death.

A 53-year-old homeless man, familiar to local storeowners for about 15 years, had been living for the last three months beneath the trailer of an abandoned tractor-trailer behind a strip mall. Nearby storeowners said he appeared to be losing weight, and undergoing general health degeneration. He had no regular medical care. He had a history of admission to local hospitals for peptic ulcer disease and for chronic pancreatitis, with a splenic artery aneurysm recognized at one admission. The night before his death, children were observed throwing rocks in his direction. The children ran off when adults approached.

He was found dead beneath the trailer, surrounded by empty beer cans and vodka bottles. The scene investigators saw a bruise behind his left ear. At autopsy, he had numerous bruises of different ages on his shoulders, arms, chest, and legs, although no external bruise was appreciated in the livor behind his left ear. Small abrasions were noted on his elbow and hand; there was no other evidence of external injury.

The following lesions were found on internal examination: a small subgaleal hemorrhage behind the left ear, with a recent left-sided subdural hematoma; fresh injury to the left thoracic wall, without rib fracture; three separate ulcers or tears at the esophageo-gastric junction, one of which appeared to have perforated, but might have been postmortem; an ostium secundum defect of the heart, with right ventricular dilatation; slight coronary atherosclerosis, with a left predominance of the coronary system, and with a remote infarct of the posterior left ventricle, which was surrounded by a faint hyperemic area; micronodular cirrhosis of the liver, with diffuse, prominent fatty change; severe chronic pancreatitis, with a stented splenic artery aneurysm; three peptic ulcers in the first part of the duodenum, without frank bleeding; an intrahepatic aneurysmal dilatation of a large branch of the portal vein, with thrombosis; and moderately severe emphysema with chronic bronchitis. It was not possible to answer police inquiry, at gross autopsy, as to which of these had caused his death; or whether his manner of death was natural, accident, or homicide.

What do you do when you have too many causes of death, without a clear manner? The ramifications of multiple severe illnesses and injuries in a single case are discussed, particularly in a setting of homelessness and chronic alcoholism, with relevance to the manner of death.

#### Multiple Causes of Death, Manner of Death, Alcoholism