



Pathology/Biology Section - 2013

G112 A Retrospective Study of Non-Criminal Autopsy Cases in the Central Part of China From 2001–2010

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After attending this presentation, attendees will gain knowledge about the medicolegal death investigation system in China and common causes of sudden unexpected death, accidental death, and suicides in central part of China.

This presentation will impact the forensic science community by showing the importance of forensic autopsy in the medicolegal death investigation. The understanding of deaths due to allergic reaction to antibiotics caused by medical malpractice could lead to the prevention of such deaths.

Medicolegal death investigations in China are conducted by forensic medical experts, mainly within five relatively independent agencies: (1) the police departments; (2) the prosecutors' offices; (3) forensic medicine/science institutes in medical colleges and universities; (4) Institute of Forensic Science in the Ministry of Justice; and, (5) the government or private forensic societies. Approximately 300 forensic medical experts are distributed in 33 of 150 medical colleges, four universities of political science and law, and nine colleges of police or criminal police. The forensic medical experts/forensic pathologists in the medical colleges and universities are primarily responsible for the medicolegal examination of sudden unexpected deaths, accidental deaths, and suicidal deaths.

Wuhan is the capital city of Hubei province in central China with a population of 9,785,392. Forensic pathologists at Tongji Forensic Medicine Center of Huazhong University of Science and Technology (TFMC) are primarily responsible for the forensic examination of the sudden unexpected deaths, accidental deaths, and suicide cases in Wuhan. A retrospective study of forensic autopsy cases was conducted at the TFMC from 2001 to 2010. A total of 854 autopsy cases were performed by the forensic pathologists at TFMC in Wuhan city during the ten-year period. Of these deaths, 799 cases were determined to be non-criminal deaths. The age of individuals ranged from 0 to 82 years with the majority of subjects in the ages of 21 to 60 years (560 cases, 70.1%) and the mean age of 33.79 ± 19.17 years. As regards to gender, there was a male preponderance (male: female = 1.87:1). More than 60% of deaths were due to natural diseases (488 cases), 213 cases (26.7%) were from accidents, and 28 (3.5%) were suicide. Of the 799 cases, the cause and manner of death could not be determined in 70 cases (8.8%) after thorough death investigation and autopsy examination. Of the natural deaths, 209 subjects (26.2%) died of atherosclerotic cardiovascular diseases and 31 subjects (3.9%) died of intracranial hemorrhage. There were 113 cases (14.14%) involving infant deaths. Asphyxia due to amniotic fluid aspiration was the most common cause of death in newborn babies. Interstitial pneumonia was the most common cause of death in infancy. Sudden Infant Death Syndrome (SIDS) was a very uncommon diagnosed cause of death in infants. The study also showed that massive bleeding after delivery was the major cause of death in the perinatal women. Of the 799 cases, 213 cases were accidental deaths. Of the 213 accidental deaths, 42 deaths were due to motor vehicle accident, 22 deaths were due to adverse drug reaction caused by medical malpractice, most of which resulted from allergic reaction to antibiotics. There were five cases from anesthesia accidents.

In summary, this report focuses on the characteristics of the non-criminal deaths occurring in central China. Presented data indicate that atherosclerotic cardiovascular disease is the number one cause of sudden unexpected natural deaths in Wuhan, followed by intracranial hemorrhages. Interstitial pneumonia was the leading cause of death in infants. Deaths due to allergic reaction to antibiotics caused by medical negligence remain a serious health problem in China.

Forensic Autopsy, Cause of Death, Drug Reaction