



G35 Natural Causes of Sudden Unexpected Infant Death: A Seven Year Retrospective Forensic Autopsy Study in Hubei, China

*Ling Li, MD**, Office of the Chief Medical Examiner, State of Maryland, 111 Penn Street, Baltimore, MD 21201; *Lan Zhou, BM*, Department of Forensic Medicine, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, 430030, PEOPLES REPUBLIC OF CHINA; *Xiang Zhang, MD**, Office of the Chief Medical Examiner, 111 Penn Street, Baltimore, MD 21201; *Liang Lui, MD*, Tongji Medical College, 13 Hong Kon Road, Wuhan, Hubei 430030, PEOPLES REPUBLIC OF CHINA; *Lin Chang, MD*, Key Laboratory of Evidence Science, China University of Political Science and Law, Beijing, MD 100040, PEOPLES REPUBLIC OF CHINA; *Guangzhao Huang, BM*, Department of Forensic Medicine, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, MD 430030, PEOPLES REPUBLIC OF CHINA; and *David R. Fowler, MD*, Office of the Chief Medical Examiner, 111 Penn Street, Baltimore, MD 21201

After attending this presentation, attendees will become familiar with the common natural causes of sudden unexpected infant death in Hubei province, China and will better understand the difference in the diagnosis of sudden infant death between China and western countries.

This presentation will have an impact on the forensic science community as it suggests that further studies are needed to focus on the differences in the diagnosis of sudden infant death between developing countries and developed countries.

The importance of a forensic investigation and autopsy in cases of sudden infant death has only recently received attention in China. An analysis of forensic autopsy data on sudden infant deaths in Hubei, China has never been undertaken. This report describes the epidemiological characteristics and pathological findings of sudden infant death cases investigated by the Department of Forensic Medicine at the Tongji Medical College in Hubei, China from 1999 to 2006.

A retrospective study of forensic autopsy cases conducted at the Department of Forensic Medicine, Tongji Medical College in China over a seven year period between 1999 and 2005 yielded a total of 68 infants who died suddenly and unexpectedly in Hubei province. The age ranged between newborn and 12 months. A total of 41 cases (60%) of the deaths occurred in the neonatal period, 13 (22%) infants in the first six months of life, and the remaining 12 cases (18%) in the age between seven months and one year. There were 54 males and 14 females (M: F = 3.8:1). The most common cause of sudden neonatal death was pneumonia (N=14), followed by congenital abnormalities (N=9); asphyxia due to amniotic fluid aspiration (N=7); respiratory distress of newborn (N=3); intrauterine hypoxia and birth asphyxia (N=3); complications of prematurity (N=2); newborn affected by complications of cord (N=1), birth trauma (N=1); and tetanus (n=1); and one death with undetermined cause.

The three leading causes of sudden death in infants, age 1 to 12 months were pneumonia (N=11), congenital heart disease (N=3), and meningitis (N=2). Only one infant was diagnosed as SIDS death.

Infectious diseases are a frequent cause of death in infants who died suddenly and unexpectedly in Hubei, China. These findings contrast with those from developed countries in which Sudden Infant Death Syndrome is the commonest cause of sudden unexpected death in infancy. This study demonstrates that it is important to document autopsy-based data such as these in the planning of medical services in a developing country.

Sudden Infant Death, Forensic Investigation, Autopsy