



H36 A Retrospective Study of Natural Causes of Sudden Unexpected Infant Deaths in Hubei, China

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After attending this presentation, attendees will better understand the epidemiological characteristics and pathological findings of sudden unexpected infant death caused by natural diseases in China.

This presentation will impact the forensic science community by providing attendees with a better understanding of why Sudden Infant Death Syndrome (SIDS) is exceptionally rare among Chinese infants when compared to Western infants. This presentation will also demonstrate the reasons for the rarity of SIDS in China.

The importance of forensic investigation and autopsy in cases of sudden unexpected infant death has received public attention only in the past 10 years in China.¹ Risk factors for sudden infant death have been investigated by many countries.^{2,3} This study is presented to describe 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.

A retrospective search of sudden infant deaths caused by natural diseases from forensic autopsy cases was performed at the Department of Forensic Medicine, Tongji Medical College in Hubei province, China. Over a seven-year period, a total of 55 infants who died suddenly and unexpectedly were determined to be natural deaths after a thorough investigation and autopsy examination. The ages ranged from newborn to 12 months. Of the 55 cases, the majority of deaths (65%) (36/55) occurred in the neonatal period, 18% (10/55) were in the first six months of life, and the remaining cases 17% (9/55) were between seven months and one year of age. There were 43 males and 12 females (M:F=3.6:1). The most common natural causes of sudden neonatal death were lobar pneumonia due to amniotic fluid aspiration (N=13) followed by congenital abnormalities (N=9), prematurity (N=8), interstitial pneumonia (N=3), bronchopneumonia (N=1), exsanguinations due to umbilical cord bleeding (N=1), and tetanus (N=1). The two leading causes of sudden infant death, age 1 month to 12 months were interstitial pneumonia (N=10) and meningitis (N=2). There was only one SIDS death.

Compared to Western countries, infectious diseases are the most common cause of death in infants in China. SIDS was believed to be exceptionally rare among Chinese infants. There was only one infant whose death was attributed to SIDS during the past seven years. The reasons for the rarity of SIDS death in China include: (1) a very low infant autopsy rate; (2) under-diagnosis (most of the physicians, including forensic pathologists, do not believe in a SIDS diagnosis); (3) over-diagnosis of interstitial pneumonia as a cause of sudden infant death; and, (4) better sleeping arrangements, such as supine sleeping on firm beds with close supervision by the parents.

Reference(s):

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 3. Lin S. Analysis of 265 autopsies of sudden death in children. *J. Foren Clin Med*. 2006 Aug-Nov;13 (6-8):293-5.
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Forensic Science, Sudden Infant Death Syndrome, Forensic Autopsy