The Study on Corpse Floating Time in Shanghai Region of China

Authors: Hang Meng, Wen-Bin Liu, Bi Xiao, Kai-Jun Ma, Jian-Hui Xie, Geng Fei, Tian-Ye Zhang, Lu-Yi Xu, Dong-Chuan Zhang **Abstract:** The victims in water are often found in the coastal region, along river region or the region with lakes. In China, the examination for the bodies of victims in the water is conducted by forensic doctors working in the public security bureau. Because the enter water time for most of the victims are not clear, and often lack of monitor images and other information, so to find out the corpse enter water time for victims is very difficult. After the corpse of the victim enters the water, it sinks first, then corruption gas produces, which can make the density of the corpse to be less than water, and thus rise again. So the factor that determines the corpse floating time is temperature. On the basis of the temperature data obtained in Shanghai region of China (Shanghai is a north subtropical marine monsoon climate, with an average annual temperature of about 17.1°C. The hottest month is July, the average monthly temperature is 28.6°C, and the coldest month is January, the average monthly temperature is 4.8°C). This study selected about 100 cases with definite corpse enter water time and corpse floating time, analyzed the cases and obtained the empirical law of the corpse floating time. For example, in the Shanghai region, on June 15th and October 15th, the corpse floating time is about 1.5 days. In early December, the bodies who entered the water will go up around January 1st of the following year, and the bodies who enter water in late December will float in March of next year. The results of this study can be used to roughly estimate the water enter time of the victims in Shanghai. Forensic doctors around the world can also draw on the results of this study to infer the time when the corpses of the victims in the water go up.

Keywords: corpse enter water time, corpse floating time, drowning, forensic pathology, victims in the water

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