

PAPER**PATHOLOGY/BIOLOGY**

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Current Medico-legal Death Investigation System in China

ABSTRACT: Medico-legal death investigation in China has a long history that can be traced back to the Chhin era in the third century BC. We conducted a national study on the current medico-legal death investigation system in China. Our study showed that, at present, medico-legal death investigations in China are conducted by *c.* 12,000 forensic medical experts mainly within five relatively independent agencies: the police organizations, the prosecutors' offices, the departments/divisions of forensic medicine/science in medical colleges and universities, the Institute of Forensic Science in the Ministry of Justice, and the government or private forensic societies. Owing to China's large population and area, the medico-legal death investigation is largely based on the administrative divisions. There is a wide variation in the scope, extent, and quality of investigations among the agencies and at the different levels of county/district, municipal, and provincial governments. This article gives a general overview of medico-legal death investigation in modern China.

KEYWORDS: forensic science, forensic pathology, medico-legal system, death investigation, autopsy, China

The State of Chhin in ancient China has been regarded as the birthplace of forensic medicine (1). Documents entitled *Feng Chen Shin* (Models for Sealing and Investigating) written on bamboo strips discovered from a Chhin tomb revealed a detailed description of death investigation that was reported as "Death by Robbery with Violence" and "Death by Hanging." The first systematic book on forensic medicine in any civilization is the *Xi Yuan Ji Lu* ("The Washing Away of Wrong" or "Collected Cases of Injustice Rectified"), which was written by Song Ci (1186–1249), who is honored as the greatest figure in the history of Chinese forensic medicine (2).

The modern medico-legal death investigation was not established in China until the 1930s, pioneered by Professor Lin Ji (1897–1951) (2,3). Professor Ji who studied forensic medicine in Germany came back to China and established the first teaching class of forensic medicine at Peking University Medical College (now Beijing University Medical College). Before the founding of the new China in 1949, the development of medico-legal death investigation was very limited with few trained forensic pathologists in only a small part of China. Ever since 1949, the modern Chinese medico-legal death investigation system has undergone three distinct periods of development: 1949–1965, 1966–1977, and 1978–present.

The first stage of development of modern medico-legal death investigation took place during the 1950s. With the establishment

of the People's Republic of China, the Ministry of Health promulgated the first edition of "National Guidelines of Autopsy Performance" in 1950, which was modified in 1957. The principal objective of these guidelines was to provide a constructive framework that divided autopsies into three categories: general autopsy, hospital autopsy, and forensic autopsy. It was stated in the guidelines that forensic autopsy could only be performed by the forensic medical experts in the police force, courts, prosecutors' offices, the forensic medical institutes of medical colleges, and certain hospitals under the commission of the courts, prosecutors' offices, or police force. In 1951, the Nanjing Central University Medical College (now Nanjing University Medical College) commissioned by the Ministry of Health hosted a first training class in forensic medicine for medical school teachers. From 1952 to 1956, the Institute of Forensic Medicine (now the Institute of Forensic Sciences) under the Ministry of Justice trained more than 200 medical students for work in forensic medicine and most of them became forensic pathologists (2,3). Until the early 1970s, many medical schools had established either a department of forensic medicine or a division of forensic medicine within the department of pathology to give lectures on forensic medicine to medical school students. Forensic medicine became a part of medical school curriculum.

With the onset of the Cultural Revolution in 1966, the development of the medico-legal investigation system essentially ceased with many trained forensic medical experts forced to leave their posts. Almost all the medical schools shut down their forensic medicine programs. During the period of the Cultural Revolution, the medico-legal death investigation system in China almost completely collapsed. The government officials with absolutely no formal education in medicine and training in forensic medicine were in control of the medico-legal system. The medico-legal death investigation officers were appointed by the government to safeguard the interests of the government themselves.

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The end of the Cultural Revolution brought the reinstatement of the public medico-legal investigation system. Beginning in 1997, the number of trained forensic medical experts involved in medico-legal death investigation has increased tremendously and expanded into the police force, courts, prosecutors' offices, and the justice system, as well as the universities of forensic medical sciences. During the rapid development period from 1977 to 2005, medico-legal death investigation in China was a multiagency and multilevel system, in which there was more than one forensic medical agency conducting death investigations in the same jurisdiction. The forensic medical experts in the police, courts, and prosecutors' offices at the different administrative levels handled the cases submitted to their own agencies. Each agency was independent from the others, and a case could be rechecked by more than one agency during the legal process (2). Since 2005, the medico-legal death investigation has undergone profound changes that reflect the political and economic reform in China. At the end of 2005, the central government passed legislation concerning the medico-legal investigation system in China. The purpose of the legislation was to discontinue the practice of medico-legal death investigation by the forensic medical divisions in the courts and to limit the authority of the prosecutors' offices involved in the medico-legal death investigation to avoid conflict of investigations and prosecutions within the same agencies.

This article focuses on the current medico-legal death investigation system and the qualifications of forensic medical experts in China.

The Basic Structure of the Current Medico-legal Death Investigation System

China is a large country noted for its dense population of over 1.3 billion people and vast territory covering an area of 9,671,017.56 km². The structure of medico-legal investigation is largely based on the administrative divisions in China. Owing to China's large population and area, the administrative divisions of China have consisted of several levels. The province-level divisions are directly controlled by the central government, including 23 provinces, five autonomous regions, four direct controlled municipalities, and two special administrative regions. Under the province level, there is a prefecture/municipal level, a county level/district level, and a township level/village level. Currently, there are 333 prefectures/municipal regions and 2862 county level regions. The Chinese judicial administration is also systematically organized according to the administrative divisions. The police organization (police department) is called "Public Security" in China. Each of the province-level divisions has a Department of Public Security, and each of the prefecture-/municipal-level regions and county-level regions has a Bureau of Public Security. Each police organization has its own division of forensic medicine. As with the police force, each level of administrative divisions has a prosecutor's office. About 10% of prosecutors' offices have divisions of forensic medicine, mainly at the province level and prefecture/municipal level of administrative divisions. The divisions of forensic medicine in the police force and prosecutors' offices at the municipal and county/district level are basic operational units. They are independent to each other at the same level, but under the administration of province-level divisions. There are also divisions of forensic medicine in the central government agencies: the Ministry of Public Security and the Supreme People's Prosecutor's Office. Their main functions are to provide the lower-level agencies with more advanced scientific and technological support and to recheck the cases with disputes and questions. The Ministry of National Security has its own division of forensic medicine too.

At present, medico-legal death investigations in China are conducted by forensic medical experts mainly within five relatively independent agencies: (i) the police organizations, (ii) the prosecutors' offices, (iii) the departments/divisions of forensic medicine/science in medical colleges and universities, (iv) the Institute of Forensic Science in the Ministry of Justice, and (v) the government or private forensic societies. Today, China has an estimated more than 10,000 certified forensic medical experts in the police organizations and *c.* 1000 forensic medical experts in the prosecutors' offices engaged in medico-legal death investigations. 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. There are about 700 governmental and private societies of medicine or forensic sciences with an estimated 2000 forensic medical experts.

The Jurisdiction, Scope, and Infrastructure of Medico-legal Death Investigation

Medico-legal death investigations are conducted by the authority of the country's law at the different levels of governments. In general, the forensic medical experts within the police force are responsible for conducting death investigation involving homicides, suicides, unintentional injuries, drug-related deaths, and deaths with suspicion. The forensic divisions of the prosecutors' offices handle investigations of death in police custody, in prison, and correctional institutions. The division of forensic medicine/science in colleges and universities as well as the government and private forensic societies mainly handles the cases sent to them by the police, courts, and prosecutors' offices, sometimes requested by the decedents' families. The majority of the cases are noncriminal, complicated civil cases, especially cases related to therapeutic misadventure with disputes among the law enforcement agencies, hospitals, and families. There is one Institute of Forensic Sciences under the Ministry of Justice. It is involved in the death investigation of both civil and criminal cases referred to them by the police, courts, and prosecutors' offices.

The scope and quality of death investigations vary widely according to the practice of distinct agencies at the different levels of administrative divisions. Generally, for homicide cases or cases under suspicion, the scope of the investigation includes death scene investigation, collection of evidence, external examination, complete autopsy including toxicology testing, and the completion of a death certificate that certifies the cause and manner of death. The forensic divisions in the police force have the jurisdiction on all the homicide cases. They have the authority to conduct the investigation and perform forensic autopsies with no need for permission by the decedents' families. For the nonhomicide cases, scene investigation and external examination of the body are the general rule unless the family requests an autopsy. Any deaths occurring in the custody of law enforcement agencies are investigated by the forensic divisions of the prosecutors' offices. In general, there is no charge or fee imposed on the family members when investigation and autopsy services are provided by the police and prosecutors' offices. Their funding comes from the governments within their jurisdictions.

Although almost all the medical colleges and universities in China are run by either central or local governments, the death investigations conducted by the departments/divisions of medical colleges and universities usually are subject to a fee ranging from 500 Chinese Yuan (*c.* 74 US dollars) for an inspection case to 6000 Yuan (*c.* 880 US dollars) for an exhumed body, paid either by the requesting agency or the family member. There is a general rule to

obtain permission from families to perform an autopsy. Families can object to having an autopsy in noncriminal cases. The number of forensic medical experts in each university ranges from four to eight. They are primarily engaged in teaching and research but also conducting autopsies and review cases referred by the police, courts, prosecutors' offices, and families. The functions of the forensic medical experts in the government or private forensic societies are similar to those in the universities. They are profit organizations that conduct death investigations on cases with civil litigation, such as in malpractice, personal injuries, or life insurance claims.

The Institute of Forensic Science under the Ministry of Justice located in Shanghai was established in 1951. This Institute founded by the central government serves as a national forensic science center engaging in research on science and technology related to forensic appraisal, training on-the-job professionals, and performing scientific and technological appraisals on the difficult and complicated issues involved in the major cases referred by the police departments, prosecutors' offices, and courts nationwide. The Institute currently has about 150 employees and has set up 10 subspecialties: forensic clinical medicine, forensic pathology, forensic psychiatry, forensic biology, forensic toxicology, document examination, forensic examination of audio-visual materials, trace evidence, road traffic accident appraisal, and research on forensic appraisal rules and regulations. The department of forensic pathology has nine staff forensic pathologists. Each year, they handle more than 1000 complicated cases referred to them by the police, the prosecutors' offices, or the courts because certain questions could not be answered by the initial investigation and postmortem examination. Their tasks include establishing the cause of death, determining the primary, secondary and contributory factors in the cause of death when trauma and disease are present simultaneously, estimating the time of death, inferring the type of weapon used, distinguishing homicide from suicide when the manner of death is in question, establishing the identity of human remains, and analyzing traffic accidents.

Education, Training, and Qualifications of Forensic Pathologists

The medical education of forensic medical experts is carried out in the medical colleges that enroll graduates of high school with high scores on an extremely competitive national entrance examination. Currently, there are two kinds of education programs: one is a 5-year program of bachelor's degree of medicine majoring in forensic medicine (B.M. Foren. M.), which consists of a 4-year curriculum of basic and clinical medical sciences and a 1-year curriculum of forensic medicine including forensic pathology, forensic clinical medicine, forensic toxicology, forensic serology, forensic psychiatry, and forensic anthropology; the other is a 5-year program of bachelor's degree of general medicine (B.M.), which consists of a 5-year curriculum of basic and clinical medical sciences including about 20 h of basic forensic medicine. Medical graduates with B.M. Foren. M. degree are not qualified to apply for a medical license and cannot practice general medicine other than forensic medicine. Medical graduates with a B.M. degree in general medicine, however, are qualified to apply for a medical license and can practice either general medicine or forensic medicine. In general, the medical graduates from both education tracks (B.M. and B.M. Foren. M.) receive the same basic anatomic pathology training during the second or third year of their medical school study. The non-forensic hospital pathologists usually have to do 1 or 2 years of surgical pathology resident training. There is no additional anatomic pathology training requirement for the forensic pathologists.

Hospital autopsies are usually performed by forensic pathologists, which is part of their on-the-job training program.

At present, almost all the medical colleges, four universities of political science and law, as well as nine colleges of police/criminal police have a division of forensic medicine to teach forensic medicine to medical students or nonmedical undergraduates. Thirty-three of 150 medical colleges have established a department of forensic medicine offering a 5-year program of B.M. Foren. M. There are 30 universities that have a division of forensic medicine offering postgraduate study with either a 3-year Master's degree or 6-year Ph.D. degree in forensic medicine. Medical graduates with advanced degrees of either Master's or Ph.D. in forensic medicine usually work in academic institutions. They engage in research and teaching, as well as providing forensic pathology services.

Thus far, China has no national standards for training and certifying forensic medical experts. Each administrative division at different levels has its own policies and regulations. The qualifications of forensic medical experts vary widely from agency to agency. In general, the basic requirements for certifying as a forensic medical expert are: (i) being a Chinese citizen with good moral standards and good health, not having any felony convictions; and (ii) having a bachelor's degree of medicine or the equivalent in forensic sciences with on-the-job training in forensic pathology for 5 years, or having engaged in investigations in the field of forensic sciences for more than 10 years with excellent skills even without a bachelor's degree of medicine, or having a title of professor or senior scientist related to forensic sciences no matter what kind of training and experience he or she has in death investigation. Medical license and general pathology residency training are not required for obtaining a certificate by a forensic medical expert. In some jurisdictions, forensic medical experts have to pass an examination provided by their judicial administrations. A certificate of forensic medical expert is issued by a special committee in either the departments of public security or the prosecutors' offices at the province administrative level. Usually, a certificate is valid for 5–6 years, but renewable with evaluation of performance in practice by the committee. A forensic medical expert has the authority to conduct medico-legal death investigations in their jurisdiction.

In 2004, the Ministry of Justice established a National Laboratory Accreditation Committee for Conformity Assessment (NLACCA) as an inspection and quality management system. As of now, however, <1% of the nation's medico-legal investigation offices have been accredited by the NLACCA.

Current Developments, Major Issues, and Challenges Facing the Medico-legal Death Investigation System

The Chinese medico-legal system is deeply influenced by the political system. As a result of rapid development of China's social and economic status and gradual reform of its political and legal system, the medico-legal death investigation system has begun to receive more and more attention, which it deserves. The central government is trying to standardize the existing system by establishing national guidelines and regulations for medico-legal death investigation. Recently, the Political and Legal Committee of the State Council (PLCSC) has granted 10 forensic institutes status as national-class medico-legal investigation centers. Four of the institutes are under the administration of the Ministry of Public Security, four institutes under the administration of the Ministry of Justice, one within the Supreme People's Prosecutor's Office, and one in the Ministry of National Security. These 10 institutes serve as national forensic referral and appraisal centers to handle cases with disputes nationwide.

The Key Laboratory of Evidence Science at the China University of Political Science and Law (KLES-CUPL) is one of the 10 PLCSC certified institutes. The KLES-CUPL under administration of the Ministry of Education located in Beijing was established in 2005 as a result of reform of China's legal system. The Fada Institute of Forensic Medicine and Science formerly belonged to the High People's Court of Beijing separated from the Court and merged into the CUPL. The KLES currently has 30 forensic scientists in six subspecialties (forensic pathology, forensic clinical medicine, forensic psychiatry, forensic biology, forensic toxicology, and document examination) and 10 professors in evidence law, engaging in research, teaching, and providing forensic services nationwide. The birth of the KLES marks a milestone in the development of evidence science in China. The KLES is a national institute that integrates forensic medicine, criminalistics, and evidence law. It also integrates academic studies between natural science and social science.

The medico-legal death investigation system in modern China has improved greatly during the last 20 years, but there is still significant weakness in the current system (4,5). There is a wide variation in the scope, extent, and quality of death investigations among the agencies and at the different levels of administration. Thus far, to a varying extent, depending on jurisdiction in the current system, there is a lack of practice standards for training and certifying forensic medical experts and a lack of quality measures and quality control mechanisms. The other major issues are similar to the system in the U.S. (6): the shortage of qualified forensic medical experts and the lack of adequate resources from local governments for operations and personnel. Many forensic institutes have difficulty in recruiting and retaining skilled experts performing death investigation because of low salaries. More and more medical graduates with a degree of B.M. Foren. M. rather take a job in forensic toxicology, forensic serology, or clinical forensic medicine because they can be paid a better salary. Very few medical graduates with a degree of B.M. are interested in becoming forensic medical experts when they can get much higher salaries by practicing general medicine. Therefore, some of the forensic institutes have to use less qualified personnel to perform death investigation, which contributes to the overall problem of inadequate death investigations in many jurisdictions.

One more issue facing the current system is that the practice of medico-legal investigation in China has been questioned for its impartiality and neutrality. There are serious flaws with regard to the medico-legal death investigations under the organizations that impose fees for their services. Forensic science service, as we believe, should be performed for public interest. However, many

organizations have developed as profit-oriented institutions. Their pursuit for high returns from their forensic services necessarily results in the commercialization of forensic evidence and thus poses a great danger to the impartiality and neutrality of the system.

It is clear that there is a substantial public interest and need to increase the level of education, training, and qualifications of death investigators. To further improve the current medico-legal death investigation system, it is a paramount necessity to establish national standards for training and certifying forensic experts; to install a nationwide system of inspection and accreditation; to increase the funding from the central and local governments to train and to attract more qualified personnel, as well as to modernize facilities; to impose strict fee regulation for services; and to reform the system to be more independent from the administration of police and prosecution system.

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