Postmortem Examination in Disaster


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Key words Postmortem, Inspection, The Police Surgeon Association Japan, Disaster, Judicial police officer

Introduction

In the last 30 years, I have examined approximately 4,000 bodies since I opened my orthopedic clinic with inpatient beds in Fukuoka City (Fukuoka Prefecture). Additionally, I had the opportunity to participate in the postmortem examination of 88 bodies after the Great East Japan Earthquake in March 2011, and today, I would like to share my opinions and suggestions with the audience.

Putting Terminology in Order

We often hear words such as autopsy, postmortem inspection, or postmortem examination conducted by a judicial police officer, coroner, police surgeon, or medical examiner. Various terms are used for the examination of a body that died or possibly died of unnatural causes, and the law uses the following terms accordingly.

Postmortem inspection, as it appears in the Code of Criminal Procedure*2

Article 229: When a person who died an unnatural death or the body of a person who is suspected to have died an unnatural death has been found, a public prosecutor of a district or local public prosecutor office, which has jurisdiction over the place where the body was found, shall perform a postmortem inspection.

Item 2: A public prosecutor may have a public prosecutor’s assistant officer or a judicial police officer execute the disposition set forth in the preceding paragraph.

[Note: It is normally conducted by a judicial police officer and is often referred to as a substitute postmortem inspection.]

Postmortem examination, as it appears in the Medical Practitioners Act

Article 19, Item 2: A physician who conducted a medical examination or postmortem examination, or a physician who attended childbirth, shall not refuse the submission of a medical certificate, postmortem certificate, or certificate of stillbirth, unless there is reasonable cause.

Article 20: A physician shall not treat a patient or issue a medical certificate or prescription without examining the patient, issue a certificate of birth or stillbirth without attending childbirth, nor issue a postmortem certificate without personally conducting the postmortem examination. However, these conditions shall not apply to a death certificate issued for a patient who took treatment, but died within 24 h after a medical examination.

Article 21: When a physician conducted a postmortem examination of a dead or stillborn baby of a gestational age of 4 months or older and found an abnormality, they must report to a competent police station within 24 hours.

Postmortem examination, as it appears in the Penal Code*2 (Article 192)

A person who, without a postmortem examination, buries a person who died an unnatural death shall be punished by a fine of not more

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*2 English translation is available from the Law Translation Database System maintained by the Ministry of Justice, Japan [http://www.japanese lawtranslation.go.jp/?re=02].

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than 100,000 yen*3 (1,000 USD) or a petty fine.

Simply said, the inspection of a dead body by coroners (including judicial police officers) can be referred to as a postmortem inspection, and the examination conducted by physicians (i.e., police surgeons and medical examiners) is called a postmortem examination. Legally speaking, the

*3 US dollar/JPY exchange rate: US$1 = 100 yen.
The process of preparing and issuing a death certificate or postmortem certificate is considered as a separate process.

In the regions where medical examiner systems work (namely, 23 cities in Tokyo and 5 cities of Osaka, Nagoya, Yokohama, and Kobe), “medical examiners,” who are the physicians authorized to perform a judicial autopsy, are in charge of the postmortem examinations. In the other regions of Japan, it is handled by the staff in charge at local police stations or police headquarters, as shown in Figs. 1 and 2. In the latter, a physician is asked to attend the procedure, inspect a body in the presence of a police officer, and prepare and issue a postmortem certificate (Fig. 2). Table 1 summarizes the purposes of a postmortem examination from a physician’s perspective.

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<thead>
<tr>
<th>Purposes of a postmortem examination</th>
<th>Strengthening the system to investigate the cause of death</th>
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<tbody>
<tr>
<td>1. To confirm death</td>
<td>• Increase the number of staff and provide necessary facilities and equipment</td>
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<td>2. To infer the cause of death</td>
<td>• Make active use of autopsy imaging</td>
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<td>3. To infer the type of death</td>
<td>• Improve awareness and skills for postmortem examinations among physicians</td>
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<td>4. To infer the time of death</td>
<td>• Enrich facilities and physicians specialized in autopsy</td>
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<td>5. To prepare and issue a postmortem certificate</td>
<td>• Promote collaboration with university laboratories in forensic medicine</td>
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<td>6. To advise an inspection by a judicial police officer</td>
<td>• Make further use of the medical examiner system</td>
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Determination of whether criminality is involved in an unnatural death is a task for the police.

<table>
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<th>Problems</th>
<th>Suggestions</th>
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<tr>
<td>• Autopsy</td>
<td>• Establishment of a (tentatively called) judicial autopsy system</td>
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<td>- Autopsy rate is low due to the lack of physicians specialized in autopsy</td>
<td>• Establishment of (tentatively called) forensic medicine research centers</td>
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<td>- There is no established system to conduct an autopsy when it is unclear if criminality is involved</td>
<td>• Introduction of forensic tests</td>
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<td>- Tests for illegal/toxic substances are not performed routinely</td>
<td>• Strengthening of the autopsy system</td>
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<tr>
<td>• Postmortem examination</td>
<td>• Enrichment of tests for illegal/toxic substances</td>
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<td>- A physician who is not sufficiently familiar with forensic medicine determines the cause of death based on a superficial examination of a body and advises the police whether an autopsy should be performed</td>
<td>• Upgrading postmortem examinations</td>
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<td>• Postmortem inspection and body inspection</td>
<td>• Upgrading postmortem inspections and visual inspections</td>
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<td>- Judicial police officers do not possess sufficient understanding of forensic medicine</td>
<td>• Upgrading the identification of bodies</td>
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<th>Reasons why physicians in active practice are reluctant to be involved in postmortem inspections</th>
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<tr>
<td>1. Insufficient knowledge, experience, and/or skills</td>
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<tr>
<td>2. Leaves less time for their practice or free time</td>
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<tr>
<td>3. Do not want to get involved in a crime or problems</td>
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</tr>
<tr>
<td>4. The reward is small</td>
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</tr>
<tr>
<td>5. Do not want to get involved in police matters or with police officers</td>
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<td>6. Feel afraid or sick of a corpse</td>
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Any physician can conduct a postmortem inspection with police as long as they have an active license. Some believed that this flexibility could invite erroneous postmortem inspections; however, the postmortem inspection system has been strengthened and improved in recent years (Tables 2 and 3). Many physicians are reluctant to take part in postmortem inspections by the police (Table 4); however, it is generally believed that physicians should help the police as much as possible when their expertise can contribute to investigating the true cause of death. To fulfill such a role, physicians are advised to take postmortem inspection training conducted by the Ministry of Health, Labour and Welfare (MHLW) or to become certified physicians of the Japanese Society of Legal Medicine (JSLM) for postmortem inspection.

Postmortem Inspection/Examination System in Large-Scale Disasters or Accidents

Regardless of the scale or cause of a disaster or accident, the police play the leading role in conducting postmortem inspections or examinations (either visually or with autopsy). Examples of disasters or accidents with heavy casualties are shown in Table 5. The Iwate Prefectural Police made some very useful points with regard to another aircraft incident in 1996, which we can...
all benefit from.
1) Postmortem inspections should be attended by a dentist.
2) Fingerprints should be collected from all deceased.
3) Physicians specialized in postmortem inspections/examinations should participate in the process.
4) Wide-open areas with a water supply should be secured as inspection areas.
5) Inspections should be performed on laboratory tables at the appropriate height (not on the floor).
6) Blood tests should be conducted on dissected bodies.
7) Inspection sites and morgues should be separated.

JSLM also stated that “A postmortem special-
ist should have basic knowledge about forensic medicine specialist; and at least where a postmortem examination is concerned, they should be assisted by a postmortem examination support headquarters, and a local disaster management agency should assume the position of leadership” in its document Proposals regarding large-scale disasters and accidents.

Following this statement, JSLM also announced the details of its proposals and suggested support systems, as shown in Table 6 and Figs. 3 and 4.

When the Great East Japan Earthquake struck on March 11, 2011, JSLM was contacted by the First Investigation Division of the National Police Agency on the same day, and conducted postmortem examinations as requested (Table 7). A total of 122 physicians (with a cumulative count of 1,090) and 31 dentists worked from March 13 through June 30, and then the local medical associations and university laboratories of forensic medicine took over the duty.

In large-scale disasters and incidents, the nature of the disaster or incidents typify the cause of death in many cases; therefore, the purpose of a postmortem examination lies in the personal identification of the bodies (Tables 8 and 9). For postmortem inspections by the police under such circumstances, there is a simplified form called “Inspection Reports for Multiple Corpses, Supplementary Style 8” in the Rules for Handling Corpses, Article 11 (for handling many corpses).

In the Great East Japan Earthquake, most of the victims supposed to be dead by drowning...
considering the following factors:

1. Massive water (seawater) swallowing → death by drowning (massive seawater moving at a speed of 20–30 km/h).

2. Massive debris and rubble in the mouth → death by injury (traumatic shock by hitting debris or other objects).

3. Cold temperature → death from cold (daytime outdoor temperature of 10°C or less, and below freezing point at night).

4. Burn → death by fire (due to house fires in some areas).

In any affected prefecture, the utmost priority of postmortem inspections is for the personal identification of bodies as promptly as possible so that they can be handed over to their families, as stated in the announcement from the authorities (Tables 10 and 11).

As the scale of a disaster or accident grows, the importance of cooperation with the other professions increases—not only with police officers but also with the Japan Self-Defense Forces or Coast Guard. It is evident that postmortem examinations in this recent disaster would not have been successful without such collaborations.

### About the Police Surgeon Association Japan

Established in 1995, the Police Surgeon Association Japan (PSAJ) has 480 members in 24 prefectures in Japan including Tokyo, and hosts an annual meeting and academic seminars every year. Its mission statement is shown in Table 12, and its activities are described in Table 13. Almost
members are also members of the Japan Medical Association (JMA), and, like myself, practice medicine daily and are involved in postmortem inspections as requested by prefectural police.

With our historical aspect, we plan to build a close collaboration with JMA for more enriched activities with PSAJ. I hope many JMA members will join PSAJ so that we can discuss and solve various problems that the police require assistance with physicians, and improve the skills and knowledge involved in postmortem examinations.

**Conclusion**

In principle, postmortem inspection is a task for the police. However, in a large-scale disaster or incident, the police are required to secure many more physicians than they usually have contact with in order to assist them in the task. The recent disaster showed that the most rational approach for NPA when such situation arises is to request that JMA recruits the necessary number of physicians from prefectural medical associations, just like JMA did with its JMAT (Japan Medical Association Team) program.

Lastly, I would like to share the picture of a girl standing in the rubble of the Great East Japan Disaster that the media broadcasted, and the picture of a boy who stands on the burned ground of Hiroshima after the atomic bomb was dropped (Fig. 5). I call upon all citizens of Japan to unite and strive to restore disaster areas, by using all means necessary (Fig. 6).

**Reference**