applied sciences

MDPI

Article

Current Issues in Dental Identification in Severely Burned Bodies from a Studio Arson Attack in Japan

Hiroaki Ichioka *, Risa Bandou, Nozomi Idota, Kaori Shintani-Ishida and Hiroshi Ikegaya

Department of Forensic Medicine, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, 465, Kajii-cho, Kamigyo-ku, Kyoto-City 602-8566, Kyoto, Japan
* Correspondence: ichioka@koto.kpu-m.ac.jp; Tel.: +81-75-251-5343

Abstract: A studio arson attack in Japan caused 36 deaths. Dentists obtained dental findings from 33 unidentified bodies immediately after the attack and autopsy. The dental findings before autopsy were obtained on the day of the incident and the next day. Dental findings after autopsy were obtained at 1 week from the day after the incident. We examined issues associated with collecting these dental findings. Other findings recorded were CT images, autopsy findings, and various blood and pathological examinations. Among the 33 unidentified bodies, for 30 bodies, the number of teeth from which the dental findings were obtained was significantly higher after autopsy than before autopsy. The dental findings of the remaining three bodies were not obtained before or after the autopsy. Five percent of anterior teeth and 28.7% of molars had differing pre-autopsy and post-autopsy findings. This discrepancy can be attributed to various factors. One of the major influencing factors was the carbonization of the facial surface muscles and skin along with limited mouth opening due to thermocoagulation. For the scientific identification of an individual based on dental findings, it is mandatory to examine the teeth in all quadrants. The collection of dental findings solely from anterior teeth may not be adequate to establish identity. The present article describes the challenges faced by the dentists while identifying charred bodies in an arson attack.

Keywords: dental finding; arson attack; burned body; autopsy; large-scale fire; unidentified body

check for updates

Citation: Ichioka, H.; Bandou, R.; Idota, N.; Shintani-Ishida, K.; Ikegaya, H. Current Issues in Dental Identification in Severely Burned Bodies from a Studio Arson Attack in Japan. *Appl. Sci.* **2023**, *13*, 461. https://doi.org/10.3390/app13010461

Academic Editor: Tommaso Lombardi

Received: 15 November 2022
Revised: 24 December 2022
Accepted: 27 December 2022
Published: 29 December 2022

Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

Large-scale fires around the world have a devastating effect on the lives of individuals. Since 1970, thirty-eight large-scale fires that were caused by humans or artificial materials (artificial fires) have resulted in more than 100 deaths worldwide.

The identification of an individual is a major challenge when the condition of the body is beyond visual recognition. Various scientific identification methods can be used for identification depending on the amount of information retrieved from the unidentified remains. Scientific identification methods currently used worldwide include dental, fingerprinting, and DNA profiling [1–4].

Dental examinations have contributed significantly to the identification of human remains around the globe. The Black Saturday bushfires, the largest and most damaging forest fire ever recorded in Australia, comprised a large-scale concurrent series of forest fires around Victoria, with a burn area of more than 4500 km^2. In this case, the disaster victim identification team worked effectively and designed a plan to cope with emergencies, and almost all of the 173 victims were identified using dental analysis [5,6].

This study aimed to investigate issues associated with collecting dental findings from charred bodies. The dentitions of all the unidentified bodies were examined before and after the autopsy was done. It was noted that detailed examination during dental findings was significantly impacted by carbonization of the facial muscles and skin and thermocoagulation leading to trismus.

2. The Scene

On 18 July 2019, at approximately 10:30 am, the accused transferred gasoline into a can and carried it on a cart to a bucket that was on the sidewalk near a three-story office building where the studio was located. The perpetrator then came to the first studio, scattered gasoline around the entrance hall, and set fire to the gasoline using a lighter. The fire immediately spread to nearby work areas, and the building was filled with flames and smoke at an explosive pace, leading to the building completely burning down. At that time, approximately 70 working staff members were within the building. Some escaped by jumping from windows; however, 36 individuals died, and 33 individuals were injured. The actions of police dentists and forensic dentistry specialists, who were requested by the prefectural police for dental finding collection, are shown sequentially in Table 1. Bodies that were severely burned had carbonization damage to the teeth, carbonized facial surface muscles and skin, and narrow openings of their mouths because of thermocoagulation. Therefore, collecting dental findings from these bodies was difficult, and we did not incise the bodies per the prefectural police request. Forensic autopsies were not performed to avoid disfigurement related to incisions at the angles of the mouth. These oral cavities consequently could not be examined properly. However, the prefectural police subsequently changed the investigation process. A forensic autopsy was performed on all unidentified bodies when they were found, and dental findings were obtained from the bodies again after the autopsies. Therefore, we had valuable experience in collecting dental findings from unidentified bodies before and after autopsy. Autopsies were performed in the forensic medicine departments of two universities. At one university, nine forensic scientists participated in the autopsies.

Table 1. The sequential actions of police dentists and forensic dentistry specialists from the incident until the collection of dental findings.

Date and Time	Content	Number of Dental Findings
18 July 2019, 10:30 am	Arson attack at a studio in Japan	
5:00 pm	The Coroner's Office (First Investigation Division of the Prefectural Police) called the secretariat of the Prefectural Dental Association and the forensic laboratory of the Medical University and asked for cooperation between the police dentists and the forensic dentistry specialist of the university.	
6:00 pm	Postmortem examinations were started.	
7:00 pm	Seven police dentists and one forensic dentistry specialist (eight individuals in total) began to collect dental findings from bodies remaining at the autopsy suites after the autopsy and examination.	Pre-autopsy group: 21 cases
11:00 pm	Performing the autopsies and examinations took time, and collecting the dental findings was difficult. Therefore, the dental findings of the unexamined bodies were postponed until the next day.	
19 July 2019, 9:00 am	Via phone call, the Prefectural Police asked the secretariat of the Prefectural Dental Association and the forensic laboratory of the Medical University to come to Funeral Hall A at 1:00 pm to collect the dental findings.	

Table 1. *Cont.*

Date and Time	Content	Number of Dental Findings
11:40 am	Via phone call, the Prefectural Police informed the secretariat of the Prefectural Dental Association and the forensic laboratory of the Medical University of the number of remaining bodies for which dental findings had not been collected and the three sites to lay the bodies (Funeral Hall A, Funeral Hall B, and Police Station C).	
1:00 pm to 7:00 pm	Two police dentists and two forensic dentistry specialists (four in total) went to the three sites to lay bodies in order to obtain dental findings.	Pre-autopsy group: 11 cases Post-autopsy group: 2 cases
19–22 July 2019	Two forensic dentistry specialists obtained dental findings from bodies remaining after autopsy at the Medical University.	Post-autopsy group: 23 cases
25 July 2019, 2:00 pm	Two forensic dentistry specialists obtained dental findings from the bodies after autopsies were performed at Funeral Hall A.	Post-autopsy group: 6 cases

2.1. Antemortem

We were unable to obtain antemortem data.

2.2. Postmortem

The actions of police dentists and forensic dentistry specialists, who were requested by the prefectural police for dental finding collection, are shown sequentially in Table 1. Postmortem examinations were performed on 18 July 2019, at 6:00 pm. The bodies were affected due to carbonization damage and thermocoagulation leading to limited accessibility to teeth and soft tissue during visual examination. An autopsy was performed on all the recovered unidentified bodies after which a dental examination was performed. In this report, we also examined issues associated with collecting dental findings from severely burned bodies.

2.3. Reconciliation

Reconciliation of identity was achieved for all bodies, based on DNA findings.

3. Materials and Methods

3.1. Comparison of the Number of Teeth from Dental Findings That Were Obtained before and after Autopsy

Of the 33 unidentified bodies, those from which dental findings were obtained at the place of the post-mortem investigation immediately after the incident were assigned to the pre-autopsy group, and those from which dental findings were obtained after the forensic autopsy were assigned to the post-autopsy group. The pre- and post-autopsy groups were treated by two or more police dentists or forensic dentistry specialists with more than 10 years of dental care practice, as well as sufficient experience as police dentists or forensic dentistry specialists.

Of the unidentified bodies, 32 bodies and 31 bodies were in the pre- and post-autopsy groups, respectively. Dental findings were obtained before and after autopsy from 30 bodies. In the 30 bodies from which dental findings were obtained before and after autopsy, the number of anterior teeth and molars from which dental findings were obtained was compared between the pre- and post-autopsy groups.

The study was approved by the institutional review board of Kyoto Prefectural University of Medicine (Kyoto, Japan; approval no. ERB-C-1252-3).

3.2. Comparison of Findings Obtained before and after Autopsy

Findings obtained before the autopsy were suspected to be inaccurate because of insufficient mouth opening and incomplete removal of dirt from the oral cavity. Therefore, we compared the findings obtained before and after the autopsy. The number of teeth and the number of different findings obtained before and after the autopsy were calculated, and the ratio was estimated.

3.3. Statistical Analysis

Data are presented as the mean ± the standard error. Statistical significance was determined using *t*-tests and was set at $p < 0.05$. All statistical analyses were conducted using Prism (GraphPad Software, San Diego, CA, USA).

4. Results

4.1. Differences in the Number of Teeth Examined before and after Autopsy

The mean number of anterior teeth before and after autopsy was 10.0 and 12.0, respectively (Figure 1). Additionally, the mean number of molars from which dental findings were obtained was 6.3 and 19.2 before and after the autopsy, respectively (Figure 2). The numbers of anterior teeth and molars were significantly higher in the post-autopsy group than in the pre-autopsy group.

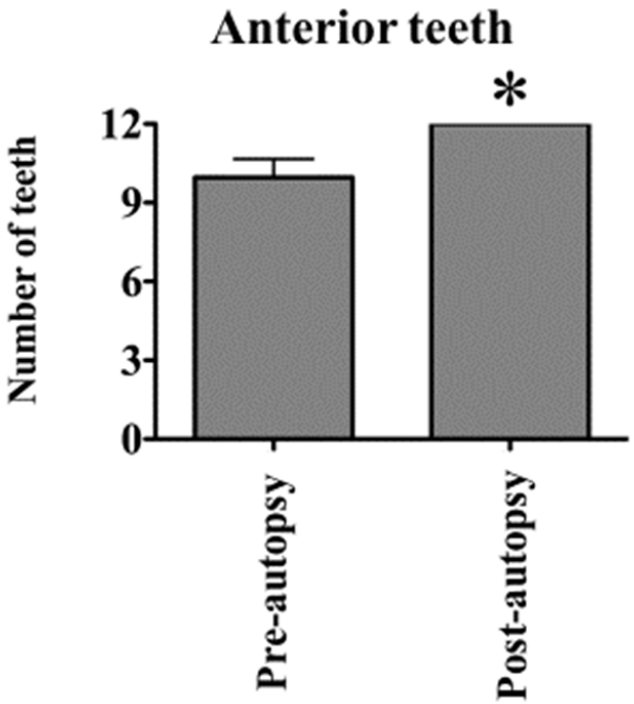


Figure 1. Differences in the number of anterior teeth examined in the pre- and post-autopsy groups. In 30 bodies from which dental findings were obtained before and after autopsy, the number of anterior teeth from which dental findings were obtained is compared between the pre- and post-autopsy groups. The mean number of anterior teeth is 10.0 and 12.0 before and after the autopsy, respectively. The number of anterior teeth is significantly higher in the post-autopsy group than in the pre-autopsy group (* $p < 0.05$ vs. the pre-autopsy group; n = 30; the values are presented as the mean ± the standard error).

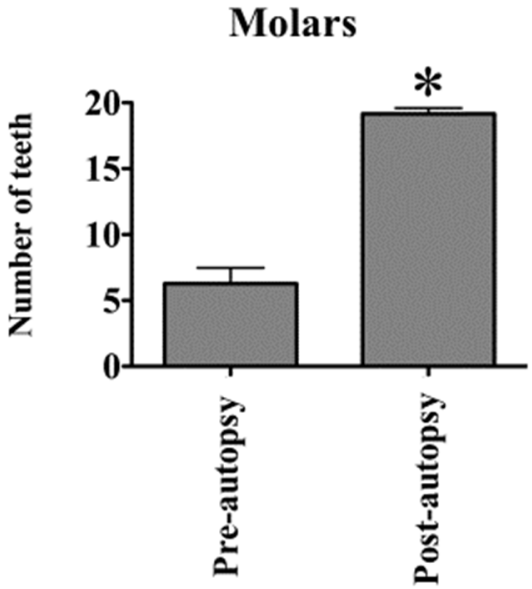


Figure 2. Differences in the number of molars examined in the pre- and post-autopsy groups. The number of molars is compared between the pre- and post-autopsy groups, in the 30 bodies from which dental findings were obtained before and after autopsy. The mean number of molars is 6.3 and 19.2 before and after the autopsy, respectively. The number of molars is significantly higher in the post-autopsy group than in the pre-autopsy group (* $p < 0.05$ vs. the pre-autopsy group; n = 30; the values are presented as the mean ± the standard error).

4.2. Differences in Findings Obtained before and after Autopsy

In the 30 bodies from which dental findings were obtained before and after autopsy, mean number of anterior teeth and molars were 10.0 and 6.3, respectively. A mean of 0.5 (5%) anterior teeth and 1.8 (28.7%) molars had pre-autopsy findings that were different from the post-autopsy findings (Table 2).

Table 2. The mean number and ratio of teeth for which the pre-autopsy findings were different from post-autopsy findings.

	Mean Number of Teeth That Were Observed and Obtained before Autopsy	Mean Number of Teeth for Which the Pre-Autopsy Findings Differed from the Post-Autopsy Findings	Ratio (%) of Teeth for Which the Pre-Autopsy Findings Differed from the Post-Autopsy Findings
Anterior teeth	10.0	0.5	5.0
Molars	6.3	1.8	28.7

The number of teeth obtained before and after the autopsy, the number of differing pre- and post-autopsy findings, and the burn levels around the oral cavity in all bodies from which dental findings were obtained are shown in Table 3. Dental findings of all 12 anterior teeth were obtained before the autopsy in most bodies. However, some bodies had few findings before autopsy (body numbers 3, 12, 15, and 19). Dental findings of all 12 anterior teeth were obtained from all bodies post-autopsy. All 20 pre-autopsy molars were obtained from only four bodies (body numbers 5, 10, 11, and 13). However, three of these bodies (body numbers 10, 11, and 13) appeared to have different findings before and after the autopsy, with the most different findings being in nine molars. All bodies from which all 12 anterior teeth and 20 molars were obtained pre-autopsy had level 2 burns around the oral cavity (body numbers 5, 10, 11, and 13).

Table 3. The number of teeth findings obtained pre- and post-autopsy, the number of different findings obtained pre- and post-autopsy, and the burn levels around the oral cavity in all bodies with dental findings, with body numbers assigned expediently.

Body Number	Burn Level around the Oral Cavity	The Number of Teeth from Which Findings Were Obtained Pre-Autopsy (Anterior Teeth/Molars)	The Number of Teeth from Which Findings Were Obtained Post-Autopsy (Anterior Teeth/Molars)	The Number of Findings Obtained Pre-Autopsy that Differed from that Obtained Post-Autopsy (Anterior Teeth/Molars)
1	4	12/3	12/16	0/0
2	3	12/6	N.D.	N.D.
3	4	0/0	12/15	0/0
4	3–4	8/1	12/16	0/1
5	2	12/20	N.D.	N.D.
6	4	6/0	12/20	0/0
7	4	12/12	12/20	4/2
8	2	12/15	12/20	0/0
9	4	11/2	12/20	0/0
10	2	12/20	12/20	0/2
11	2	12/20	12/20	0/4
12	4	2/0	12/20	0/0
13	2	12/20	12/20	1/9
14	4	12/4	12/20	0/1
15	4	3/0	12/20	3/0
16	4	12/0	12/20	0/0
17	4	8/0	12/20	0/0
18	3–4	12/16	12/20	4/7
19	4	0/0	12/20	0/0
20	3–4	12/3	12/20	0/0
21	3	12/9	12/20	1/7
22	4	10/3	12/20	0/1
23	4	12/2	12/20	0/0
24	3–4	12/7	12/20	0/4
25	4	12/9	12/20	0/4
26	4	12/4	12/20	0/0
27	2–3	12/13	12/19	0/2
28	4	11/12	12/20	0/6
29	4	12/4	12/20	2/3
30	4	N.D.	12/20	N.D.
31	4	12/4	12/20	0/0
32	4	12/2	12/9	0/1
33	4	12/3	12/20	0/0

N.D.; no data.

4.3. Cases of Collection Errors in Dental Findings

4.3.1. Misidentification of Residual Soot Remaining in a Fissure as Metal Fillings

Dirt, including soot in the oral cavity, was eliminated by using a toothbrush before collecting dental findings. However, we misidentified the soot remaining in the fissure of the molars as metal fillings. We initially attempted to open the mouth and remove the lips, but this could not be performed before the autopsy (Figure 3a). We believed the soot had been removed when collecting dental findings before the autopsy, and what we believed to be metal filling-like findings were noted in a fissure on the occlusal surface of the mandibular right first and second premolars when examining the oral cavity after autopsy (Figure 3b). However, after thoroughly cleaning the oral cavity using a toothbrush, the presumed metal filling-like findings in a fissure on the occlusal surface of the mandibular right first and second premolars were able to be removed (Figure 3c) and were ultimately confirmed as soot.

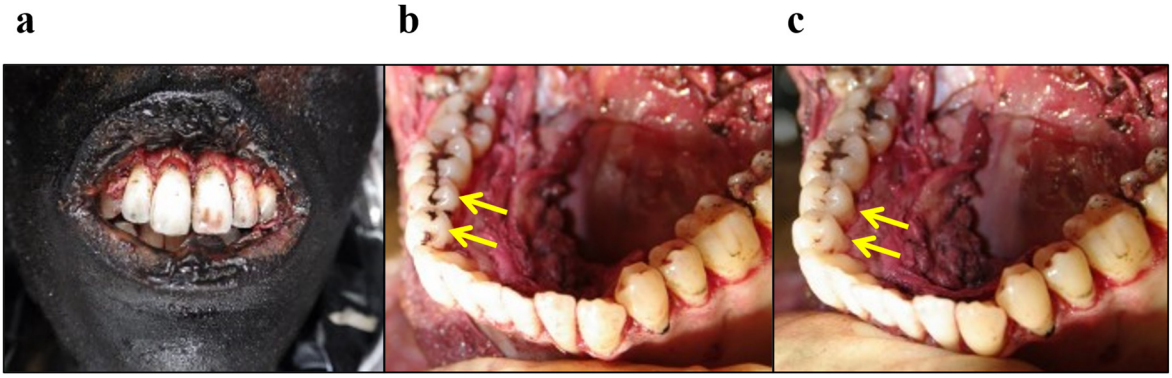


Figure 3. Misidentification of residual soot remaining in a fissure as metal fillings. (**a**) The frontal view before autopsy. Before imaging, opening the mouth and removing the lips were attempted in vain. (**b**) The mandibular occlusal surface view after autopsy. Presumed metal filling-like findings are visible and confirmed in a fissure on the occlusal surface of the mandibular right first and second premolars (arrows). This finding is not metal fillings and was ultimately identified as soot. (**c**) The mandibular occlusion view after autopsy and repeated oral cleanings. Soot in a fissure on the occlusal surface of the mandibular right first and second premolars has been removed (arrows).

4.3.2. Cases of Misidentification of Primary Molars as Molars Because of Narrow Opening of the Mouth

The molars could not initially be definitively confirmed, and we misidentified the mandibular left second primary molar as the mandibular left first molar because of insufficient mouth opening. We initially attempted to open the mouth and remove the lips, but this could not be performed before the autopsy (Figure 4a). The mandibular left and second primary molars remained and the mandibular right and left second premolars were missing when examining the oral cavity after autopsy (Figure 4b). We determined that we had misidentified the mandibular left second primary molar as the mandibular left first molar because of an insufficient visual field (Figure 4c). In this individual, the mandibular right and left first premolars were extracted for correction.

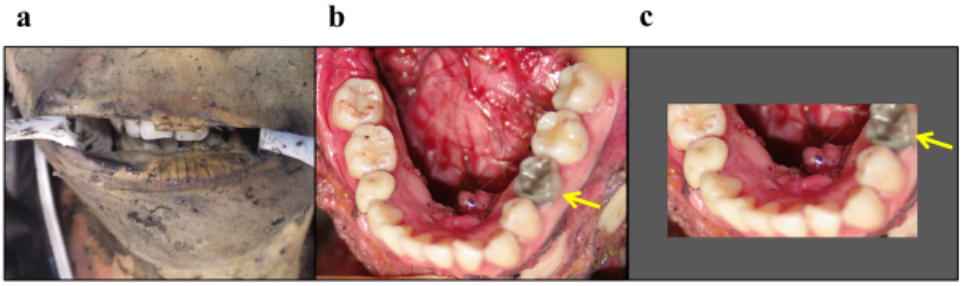


Figure 4. Misidentification of the primary molar as molar teeth because of the narrow opening of the mouth. (**a**) The frontal view before autopsy. Opening of mouth and removal of lips was attempted in vain before imaging. (**b**) The mandibular occlusal surface view after autopsy. Late residual mandibular left second primary molar led us to determine a missing premolar. The arrow indicates the tooth mistaken for the mandibular left first molar with previous insufficient mouth opening. (**c**) The photographic image of the mandibular occlusal surface view when the mouth is less open.

5. Discussion

Opening the mouth of all bodies was difficult because of the carbonization of the facial surface and thermocoagulation of the facial muscles and skin. Mouths may be opened by incising the angles of the lips and masseter muscles. However, this procedure remains an issue of discussion in tooth identification, including its impact on bereaved families and the search warrants for autopsy. Definitive guidelines have consequently not been established in Japan. The angles of the mouths were not incised in this case; therefore, few teeth were

confirmed, and only the anterior teeth near the lips could be confirmed in some bodies. Considering that many of the missing teeth included the molars [7] and vestiges of dental treatment frequently include the molars, using only the anterior teeth for identification is insufficient, particularly as the statistical findings of patients aged 25–44 years showed that the number of missing teeth had no impact. As demonstrated in the results of the post-autopsy group, collecting findings only from the anterior teeth may not be impactful, and findings from molars may also be necessary.

Dental findings that were not confirmed before autopsy were confirmed after the autopsy, when we were able to obtain adequate mouth opening. For instance, one body in which the findings on the lingual side could not be confirmed because of tongue biting before the autopsy was subsequently observed after the autopsy, after the tongue was removed. Furthermore, sufficient visual fields could be obtained after removing the skin around the neck and lips. The angles of the mouth were not incised during the autopsy. However, bodies with massive effusion in the oral cavity could not be observed completely, even after the autopsy.

The examination results showed that, in the teeth from which findings were obtained before the autopsy, 5% of the anterior teeth and 28.7% of the molars had pre-autopsy findings that were different from those obtained post-autopsy. Many victims of this incident were young and had few vestiges of dental treatment. Differing values may be higher when more older individuals, who may have more vestiges of dental treatment, are included. The victims in our study included 17 individuals in their twenties, 11 individuals in their thirties, seven individuals in their forties, and one individual in their sixties.

Recommendations

1. When unidentified remains are found in large-scale disasters or during individual incidents, the identification of human remains is usually performed [8]. If the remains are not identified from belongings, facial configuration, etc., identification by dental, fingerprint, and DNA analyses is also required [1–4,9]. Using dental analysis for the identification of remains is an extremely valid method for the following reasons: (a) a high incidence of morbid dental diseases and a large number of patients visiting dental offices, (b) a long history of dental treatment, (c) a variety of dental treatments, (d) a high frequency of use of X-ray imaging during dental treatment, and (e) the hardness of teeth results in minimal deterioration even with advanced postmortem changes or catastrophic injuries [10–14].

2. The collection of dental findings began 8.5 h after this particular incident. Previous experiences have shown that constant preparation is necessary for emergencies wherein developing a list of reference articles, preparing belongings in advance, and establishing contact lines are essential.

3. Preparing access to dental instruments and equipment, including dental mirrors, dental tweezers, probes, toothbrushes, floss, mouth opening instruments, lights (i.e., pen- or head-type), black lights, writing equipment (antemortem dental charts, post-mortem dental charts, collation paper, ballpoint pens, pencils, erasers, and magic pens), intraoral camera, mouth hook, photographic mirror, ruler, X-ray equipment set, X-ray protective apron, paper towels, hand sanitizer, tissue paper, and recording media.

4. With regards to equipment, easy-to-remove clothes, disposable caps, headlights, masks, gloves, boots or thick-soled washable shoes, goggles, face shields, and disposable gowns are required.

5. Training dentists to collect dental findings is crucial [15]. Three dentists and co-medicals can assemble a team and assign different roles for collecting the dental findings. Effective operations require preparation for testing procedures, reading of dental findings, and sufficient lighting. At 11:00 pm on the day of the incident, performing the autopsies and examinations took considerable time, particularly because collecting dental findings was difficult and required some examinations to be postponed to the next day.

This report also supports the need for more accurate dental identification after large-scale fires. However, considerations in the comparison with other large-scale fires are

necessary. First, the bodies in this incident included deaths due to crime; therefore, conducting forensic autopsies and collecting dental findings from all bodies was desirable. If possible, this is the optimal method to simultaneously collect dental findings and perform autopsies because visual fields are sufficiently maintained. Second, fires in urban areas are controlled relatively quickly whereas natural fires require more time. Therefore, differences in tooth carbonization, omission, and deformation should be considered. Finally, this particular incident occurred in an office building. In residential areas and farming communities, differentiating human remains from those of pets and livestock may also be necessary. In the Black Saturday bushfires in Australia, identification was considerably delayed because of the mixture of teeth and bones in deformed human and animal remains [16]. Further surveys and analyses are needed to determine methods for more accurate and prompt identification after large-scale fires.

6. Conclusions

The number of teeth from which the dental findings were obtained was significantly higher after the autopsy than before the autopsy. Collecting dental findings during or after the autopsy may be the optimal method because sufficient visual fields can be obtained. This report supports the need for more accurate tooth identification after large fires. To determine a more accurate and quick identification method after a large-scale fire, comparing it with other large-scale fires is necessary while considering the location and conditions of the fire.

Author Contributions: Conceptualization, H.I. (Hiroaki Ichioka); methodology, H.I. (Hiroaki Ichioka); formal analysis, H.I. (Hiroaki Ichioka); investigation, H.I. (Hiroaki Ichioka) and R.B.; writing—original draft preparation, H.I. (Hiroaki Ichioka); writing—review and editing, N.I. and K.S.-I.; supervision, H.I. (Hiroshi Ikegaya); project administration, H.I. (Hiroaki Ichioka). All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Ethics Committee of Kyoto Prefectural University of Medicine (protocol code: ERB-C-1252-3; date of approval: 30 August 2018).

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Acknowledgments: We thank Yukinobu Maruhashi, Hajime Okamoto, Kurito Yasuda, Takuo Sawada, Kazuhiro Oda, Munekazu Ishihara, and Akihiro Kimura for their help with data collection.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Taylor, J. A brief history of forensic odontology and disaster victim identification practices in Australia. *J. Forensic Odontostomatol.* **2009**, *27*, 64–74. [PubMed]
2. Montelius, K.; Lindblom, B. DNA analysis in Disaster Victim Identification. *Forensic Sci. Med. Pathol.* **2012**, *8*, 140–147. [CrossRef] [PubMed]
3. Lake, A.W.; James, H.; Berketa, J.W. Disaster victim identification: Quality management from an odontology perspective. *Forensic Sci. Med. Pathol.* **2012**, *8*, 157–163. [CrossRef] [PubMed]
4. Berketa, J.W.; James, H.; Lake, A.W. Forensic odontology involvement in disaster victim identification. *Forensic Sci. Med. Pathol.* **2012**, *8*, 148–156. [CrossRef] [PubMed]
5. Hinchliffe, J. Forensic odontology, part 3. The Australian bushfires—Victoria state, February 2009. *Br. Dent. J.* **2011**, *210*, 317–321. [CrossRef]
6. Drummer, O.H.; Cordner, S.M. Multidisciplinary forensic medical efforts of the disaster victim identification (DVI) response to intense bushfires in February 2009 in Victoria, Australia. Preface. *Forensic Sci. Int.* **2011**, *205*, 1. [CrossRef]
7. Yamada, S.; Uchida, K.; Taguchi, A.; Miki, M.; Yoshinari, N.; Kubokawa, K.; Nishida, E. A Survey on dental diseases among outpatients of Matsumoto Dental University—Investigations on current number of teeth using panoramic images. *Jpn. J. Conserv. Dent.* **2012**, *55*, 46–52. (In Japanese) [CrossRef]
8. Graham, E.A. Disaster victim identification. *Forensic. Sci. Med. Pathol.* **2006**, *2*, 203–207. [CrossRef] [PubMed]

9. INTERPOL. Disaster Victim Identification Guide 2018. Available online: https://www.interpol.int/How-we-work/Forensics/Disaster-Victim-Identification-DVI (accessed on 24 December 2021).
10. Higgins, D.; Austin, J.J. Teeth as a source of DNA for forensic identification of human remains: A review. *Sci. Justice* **2013**, *53*, 433–441. [CrossRef] [PubMed]
11. Dutta, P.; Bhosale, S.; Singh, R.; Gubrellay, P.; Patil, J.; Sehdev, B.; Bhagat, S.; Bansal, T. Amelogenin gene—The pioneer in gender determination from forensic dental samples. *J. Clin. Diagn. Res.* **2017**, *11*, ZC56–ZC59. [CrossRef]
12. Whittaker, D.K. Forensic dentistry in the identification of victims and assailants. *J. Clin. Forensic Med.* **1995**, *2*, 145–151. [CrossRef] [PubMed]
13. Avon, S.L. Forensic odontology: The roles and responsibilities of the dentist. *J. Can. Dent. Assoc.* **2004**, *70*, 453–458.
14. Poór, V.S.; Lukács, D.; Nagy, T.; Rácz, E.; Sipos, K. The rate of RNA degradation in human dental pulp reveals post-mortem interval. *Int. J. Leg. Med.* **2016**, *130*, 615–619. [CrossRef]
15. Ichioka, H.; Bando, R.; Tsuboi, H.; Idota, N.; Kumagai, W.; Ikegaya, H. Forensic dental identification of remains in five prefectures in the Kansai region of Japan. *Oral Sci. Int.* **2019**, *17*, 29–33. [CrossRef]
16. Lain, R.; Taylor, J.; Croker, S.; Craig, P.; Graham, J. Comparative dental anatomy in disaster victim identification: Lessons from the 2009 Victorian Bushfires. *Forensic Sci. Int.* **2011**, *205*, 36–39. [CrossRef] [PubMed]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.