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Short Communication

Dignified Management of the Dead in Disasters

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Abstract

Disasters are a common occurrence throughout the world that results in significant loss of human lives. Sir William E. Gladstone once said “Show me the manner in which a nation cares for its dead and I will measure with mathematical exactness, the tender mercy of its people, their respect for the law of the land and their loyalty to high ideals.” This is still relevant today and demonstrates the need for planning and preparedness of our medico-legal systems for disasters.

The dignified management of the dead in disasters is therefore important for the families to cope with the loss of their loved ones. Additionally, it is important for the medico-legal system for correct identification of the deceased. The INTERPOL DVI guide is an essential tool for all medico-legal practitioners. Dignified management of the dead in disasters including the DVI process should therefore be included in the curriculum of MBBS and MD courses.

1. Introduction

The US Bangla air crash in 2018 was the 39th air crash in Nepal, resulting in a total of nearly 800 casualties. Other instances of mass fatalities include bus accidents and accidents involving multiple vehicles. Additionally, mass casualties may result from natural disasters including earthquakes, floods, etc.¹

The need for proper and methodical documentation for identification of the deceased is self-evident. It is necessary for all members of the Disaster Victim Identification (DVI) teams to prevent bias, while guarding against missed and mis-identification.¹ The experience of forensic practitioners at the Department of Forensic Medicine, Institute of Medicine, Kathmandu shows that systematic examination of clothing, personal

belongings, and physical structures can often be extremely useful in identification of the deceased, in addition to the accepted primary methods of identification.¹

Disasters are defined as events, natural or otherwise, that overwhelm the capacity of a society to deal with the economic, socio-cultural and health effects.²

With regards to the forensic and medico-legal effects, disasters may lead to mass casualties and massively overburden the capacity of medical institutions to deal with the increased deaths. In these instances, forensic medical personnel are required to perform medico-legal examinations and help in establishing the identity of the deceased.

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Furthermore, tools have been developed to assist the forensic specialists in confirming the identity of the deceased. Technological developments over the last few decades have led to the automation of fingerprint matching. Similarly, the identification process has been greatly assisted by the development of DNA profiling. All these techniques require considerable skills and trainings. Standardisation of Forensic Odontology has also been a significant development in the identification process. Lastly, matching of ante-mortem and post-mortem medical and surgical findings, including marks of identification can help greatly in identification. These four techniques constitute the primary methods of identification.³

2. Disaster Victim Identification

The Disaster Victim Identification operations instituted by INTERPOL is an ideal tool for use in the identification of unidentified bodies. It was developed to standardise and streamline the DVI process globally. The operations require an interdisciplinary team, to work together to establish identity while ensuring standards in the scientific procedures. At the same time, it is also important to maintain the dignity, compassion and respect of the deceased and their families. Following INTERPOL standards also helps in co-ordination and sharing of information between national teams.³ The process is divided into five phases³:

1. Scene
2. Post-mortem
3. Ante-mortem
4. Reconciliation
5. Debriefing

The scene in any disaster as well as all human remains and artefacts should be processed as in a scene of crime. The process may vary depending on the nature of the disaster and the requirements of the investigation. The scene investigation following a bomb blast will be different from the scene recovery operations following an earthquake. Ideally, the scene should be meticulously examined as in any scene of crime. However, the scale and nature of disaster as well as other constraints may require prioritisation of certain aspects of the scene investigation. It is therefore important to provide adequate training to develop the knowledge and skills of first responders. In addition, forensic doctors may be required to visit the scene and help

in the recovery process. The inclusion of forensic anthropologists and forensic odontologists in scene investigation can help in ensuring that all human remains are recovered.⁴

The forensic doctor is primarily responsible for the second (post-mortem) phase in the DVI operations. The human remains and associated personal effects are systematically examined to collect as much information as possible that can help in identification of the individual. Additionally, numerous techniques are used to assist in the identification process, including photography, radiography, fingerprinting, odontology and DNA profiling and require their own experts.³

While developed countries have trained DVI units, usually within their police forces, for collecting information about the missing person (Ante-mortem data),^[3] in our experience, this responsibility also falls primarily on the forensic doctors. The family of the deceased are interviewed to collect all the relevant information. The interview should include open ended questions as is the practice in any forensic interview or history-taking. It is important to elicit as much information as possible as this will later be analysed and tallied with the findings of the post-mortem examination. Contact details of all relevant associates of the deceased, including his doctor and dentist should be obtained.⁴

In addition to the second and third phases, the forensic doctors are also involved in the reconciliation phase. The information collected during the second (post-mortem) and third (ante-mortem) phases are examined and matched to confirm the identity of the deceased during the reconciliation phase.⁴ In our experience, this is also the primary responsibility of the medical personnel, while they will need to be assisted by a multi-disciplinary team.

One very important part of the disaster response that is usually forgotten is debriefing. During this phase, team leaders will debrief their teams to examine the deficiencies in the response and also evaluate the improvements that can be made for the future.⁴ In addition, members of all the teams need to be counselled, especially if involved in the management of the dead. Psycho-social counselling should also be made available to family members that desire the service. The practice in

Nepal shows that resource management is an important skill required for forensic practitioners involved in DVI operations.

It is important to stockpile kits and equipment in preparation for the next disaster and while it may not require considerable resources, it requires significant planning. Training is an important tool for knowledge and skill development. Simulation-based training is best suited to disaster management. ^[5] The logistics for such trainings requires significant resources and planning. The only way to develop the management of the dead in disasters is to systematise the process. We therefore suggest the inclusion of this important topic in MBBS and MD curriculum as well as in associated specialities. This can help provide significant resources to support the existing systems.

Conclusion

Management of the dead and disaster victim identification operations are critically interlinked and require systemic intervention for further development. This can be achieved through the combined efforts of all related specialists and needs advocacy and lobbying to be brought to fruition.

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