

Problems of Identification Associated With Victims of Aerodisaster: The Port Harcourt Experience In December 2005

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ABSTRACT

BACKGROUND: The problems associated with identification of victims after mass disaster such as aero-accident require an elaborate study with an attempt at proffering solutions in the midst of limited facilities.

METHODOLOGY: This is a case study of aero-disaster carried out by the authors at Port Harcourt International Airport on 10th December 2005. Information was adequately disseminated through different media to alert the public to come for the identification of the bodies. The 106 victims were then separated into those whose bodies were intact with few areas of burns, crushed/multiple fractures, those with severe burns, and dismembered or disintegrated bodies.

RESULTS: Problems of identification was noticed in 26 (24.5%) of the victims which form the basis for this study. Those disputed by more than one family n=11(42.3%), those without dispute but very difficult to identify n=6(23.1%) and those that could not be identified n=9(34.6%). The cause of the identification difficulty also ranged from total disintegration of the bodies n=9(34.6%), severely burnt bodies n=12(46.2%) to those crushed with multiple fractures n=5(19.2%).

CONCLUSION: Problems of identification of severely injured victims of aero-disaster in a limited facility setting can be minimized if strict and well documented pre-travel biometric profiles are taken. Facility for DNA fingerprint, forensic odontologists and forensic anthropologist should be provided. There should also be institution of aviation accident investigation team (AAIT) and mass disaster planning team (MDPT) to aid the identification of victims and probe into the cause and effect of the accident.

KEY WORDS: Identification problems, aero-disaster, victims, Port Harcourt.

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INTRODUCTION

A disaster is defined as death involving twelve people and above in a single episode¹. The problems associated with identification of the bodies recovered in any major disaster vary according to the type of the disaster. Thus, victims of industrial explosion and aero-disaster may be seriously disfigured. Injuries sustained in aircraft accident vary from total disintegration, mutilation and/or incineration of the body to relatively insignificant

wounds¹. The situation is even worse where the crash occur at high altitude, distributing the fragmented bodies over a wide area, especially if the aircraft suddenly depressurizes leading to massive ejection of bodies². Victims may run into hundreds, which may include multinationals, causing an organizational problem for the authorities of the airport and the rescue teams.

The identification of the bodies by relatives become important, despite their emotional state of having lost their loved ones, to enable the investigating team including the Pathologist to carry out their functions³. Difficulties in identification arise when the body is badly mutilated, disintegrated or incinerated as was exactly similar to the case under review in Port Harcourt International Airport, where the plane crash-landed and burst into flame. Presumptive identification of mass casualties will depend on circumstantial evidence of which retained personal documents, properly documented manifests and allotted seat number became important¹. Although, in few isolated cases, ticket exchange and concealed identity may pose further problem of identification. The success of mass identification is impinged on the infrastructure of a workable system of body collection, examination, laying out and encasing.

This study is aimed at investigating the problems of identification in massive aero-accident such as the case in Port Harcourt International Airport on 10th December, 2005 and to suggest the way out in the midst of limited facilities.

MATERIALS AND METHOD

A case study of the identification problems associated with aero-plane accident of 10th December 2005 was carried out by the authors at the Port Harcourt International Airport, University of Port Harcourt Teaching Hospital (UPTH) and Braithwaite Memorial Specialist Hospital (BMSH) in Port Harcourt. Adequate dissemination of information through different media to alert the public to come for the identification of the bodies at least visually was made by the State Government, and the airport authorities. The authors were invited by the State Government with a coroner's inquest form through the police to personally perform the autopsies at the airport, UPTH, and BMSH. Other information was obtained from the airport staff and victims' relations.

A thorough autopsy was performed on each body after separation of the bodies based on the extent of injury and disfigurement. Three categories of identification difficulties were encountered. Those in which more than one family claiming one body, those in which there was no dispute, but difficult to identify and those that could not be identified, due to severe burns, crushed and disintegration of bodies.

RESULTS

A case study of identification problems encountered in the aero-disaster of 10th December 2005 was carried out by the authors at the Port Harcourt International Airport, UPTH and BMSH in Port Harcourt respectively. In all, 106 deaths were recorded. Eighty (75.5%) of the victims were indisputably identified by the victims relatives for proper autopsy. The remaining 26 (24.5%) cases had

identification problems and these were used for this study.

Eleven cases (42.3%) were disputed by more than one family during the process of identification, but were later resolved. Six cases (23.1%) were not disputed by any family, but were difficult to identify due to extent of injury. The other 9 (34.6%) cases could not be identified due to severity of burns and disintegration of the bodies. (Table 1)

Table II shows the frequency distribution of cause of identification problem. Nine (34.6%) bodies were disintegrated. Twelve (46.2%) bodies were severely burnt and five (19.2%) bodies were either crushed or had multiple disfiguring fractures.

Table 1: Frequency distribution of problems of body identification

Types of Problems	Number (%)
* Disputed by more than one family	11 (42.3)
* Could not be identified	9(34.6)
* Not disputed but very difficult to identify	6(23.1)
TOTAL	= 26(100.0%)

Table II: Frequency distribution of cause of problems of identification.

Types of problems	Number (%)
* Severely burnt bodies	12(46.2)
* Disintegrated bodies	9(34.6)
*Crushed bodies / multiple fractures	5(19.2)
TOTAL	= 26(100.0%)

DISCUSSION

The Port Harcourt International Airport was constructed in 1985 and since then, only the December 10th 2005 aero-accident that claimed 106 lives was the disaster recorded¹. The identification of eighty (75.5%) victims, were straightforward for autopsy and immediate release of the bodies to relative following due process. The identification of 26(24.5%) bodies, were difficult which form the basis for this communication.

The proper identification of victims in major disaster is not only important for the humanitarian and emotional

reason for the relatives, friends and next of kin, but also for legal and administrative purpose⁴. This therefore, requires all possible means to be applied to achieve a specific identification which is extremely difficult in mass disaster^{5, 6}. Some families believed that, the uncertainty is more difficult to cope with than the definitive identification; therefore, from both legal and administrative point of view, non-identification creates additional problems⁶.

The correct identification of victims of aero-disaster can only be achieved by matching the 'ante mortem data'

which should be obtained from presumed victim's family for each body involved in the accident with the 'post mortem data' which should be handled by the police officer, medical examiners and other agencies⁹. The problems arose when there is disparity between the two data, especially when the body is severely mutilated. These problems are even worst in developing countries like Nigeria with limited facilities.

Foremost of these problems was the protection of the scene of incidence (the Airport) to prevent influx of people and vehicles in order not to disturb workers. The Airport Police were unable to control this situation, as people trooped in. This problem would have been averted if there are trained personnel such as the disaster victims' identification (DVI) commission made up of ante mortem identification and the post mortem identification teams which is practiced in advanced countries⁷. There is no such commission in Port Harcourt and Nigeria as a whole. The duty is therefore, left for the police and other security agencies who are by profession not trained to perform such functions.

Also, there were no logistic support and necrosearch teams to help provide transportation, cost of embalment and body collection at the scene of incidence and at the site of autopsy as the case in another study⁵. The autopsies would have had an added advantage if conducted as close as possible to the disaster site, that is, field mortuaries as the case in Kosovo⁸. This may help in avoiding the destruction or loss of vital evidence on the body.

The next problem was the identification of the deceased bodies by relatives. This study recorded 34.6% of the victims that could not be identified due to severe burns and total fragmentation or crushing of the bodies. Should there be facility for DNA fingerprints as the case in advanced countries³, some of these bodies would have been identified. Also there is neither an odontologist nor forensic anthropologist in the investigating team who would have identified some of the bodies by cross-matching the remains as practiced elsewhere⁹, or the odontologist to study the dental and oral characteristics of the victims.

This study recorded 42.3% cases which were disputed by more than one family. In these cases, recent photographs, tribal marks, tattoos, old surgical scars were used to identify the bodies to the satisfaction of the disputing families; mirroring what was reported in another study². Also, 23.1% of our cases were not disputed by any family, but their identification was difficult and they were identified again by their clothing, *strae albicantis*; the color of the eyes; hair, the condition of the finger and toe nails, and physical ante mortem deformities/disabilities. Others were personal documents found in their pockets irrespective of the extent of damage and disfigurement of

the bodies. This pattern of identification is in keeping with report from another study⁴.

Further, presumptive identification of mass casualties may depend upon circumstantial evidence of which retained documents are probably the most useful¹, but a few persons carry nothing in the way of personalized documents, making identification almost impossible. Aircraft accident may occur in isolated places where communication may be difficult or even not available. In other cases, casualties may be multinationals whose relations may be far away or unknown, making identification difficult. X-ray would have been an additional value in severely burnt victims in that, orthopedic prostheses may be found since some of them are resistant to fire¹. This would have been used to identify those bodies that were incinerated or severely mutilated as was the case elsewhere³. The influx of people to identify their relations and friends in the hospital mortuary nearly led to stampede, because of limited space. This problem would have been averted, if there is a spacious and air-conditioned purpose-built government mortuary as the case in Britain¹.

Finally, the identification difficulties in this study were caused by disintegration, incineration, fragmentation or crushing of the bodies, leading to multiple bone fractures.

In conclusion, the compendium of the above discussion revealed numerous problems which are associated with the identification in mass disaster. The investigating team should include the forensic pathologist to at least identify the sex of the victim as well as the prostate and nulliparous uterus that are resistant to fire burn at very high temperature with long duration¹⁰, dental surgeon, anthropologists and police, for at least the identification of the bodies.

These problems would have been eased off if the following were to be in place.

- Facility for DNA fingerprint
- Training and proper utilization of the services of the forensic pathologist, anthropologists and odontologist
- Inauguration of aviation accident investigation team (AAIT)
- Mass disaster planning team (MDPT) as is the case in Britain.
- Spacious government mortuaries should be in place as hospital mortuaries are unsuitable for autopsies and Other procedures.
- There should be detailed vehicles (ambulances) to convey bodies from the scene of incidence to such government purpose built mortuaries.
- Effective and functional communication system should be provided including the phone numbers of the passenger and their next of kin in the pre-accident manifest.

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