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Case Report

The Ibadan Shock Waves Report: The Impact, Disaster Medicine Management, System Audit, the Lessons and Recommendations

Idowu EO*

Department of Emergency Medicine, University College Hospital Ibadan, Nigeria; Department of Health Policy and Management, College of Medicine, University of Ibadan; Department of Anatomy, College of Medicine, University of Ibadan, Nigeria

***Corresponding Author:** Idowu EO, Department of Emergency Medicine, University College Hospital Ibadan, Nigeria; Department of Health Policy and Management, College of Medicine, University of Ibadan, Department of Anatomy, College of medicine, University of Ibadan, Nigeria.

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Abstract

It was reported that explosives: dynamites being stored by some expatriate miners living in one of the apartments at the area generated palpable shock waves in neighboring and distant places from the site of event. It was a sad moment on 17/01/2024 in Ibadan, Nigeria as there was a massive explosion which occurred between 7:30 and 7:45 pm, at the Old Bodija axis (close to Dejo Oyelese street) behind the late Chief Bola Ige's residence. The said site was visited same night by deployed security personnels, and the emergency rescue team with mobilization of medical doctors living within and outside the Bodija perimeter to be on the alert. Many of the victims had various levels of blast injuries ranging from depressed skull fractures with underlying surface collection (epidural hematoma) requiring emergency neurosurgical intervention, different degrees lacerations and avulsions, to long bone fractures, early post-traumatic seizures, tympanic membrane perforations, etc. Victims received treatments at various private hospitals, general hospitals, primary health care centers, and the University College Hospital, Ibadan, Nigeria. Mortalities were recorded as many lost their lives during this unfortunate incident. In the 33-bedded emergency department of the University College Hospital Ibadan with patients already on admission, effective sorting, triage, transfers were made with mobilization of the necessary resources by the hospital management and effective rescue operations initiated. With effective triage disaster preparedness and management protocol, excellent clinical outcome was recorded. Lessons learnt will inform better disaster management policies and operationalization.

Keywords: Ibadan; Explosion; Disaster Medicine; Emergency Physician; Blast Injury; Victims; Survivors

Abbreviations

UCH: University College Hospital

Introduction

Globally, disasters strike without warning especially in areas unprepared for it. In Africa, frontiers in emergency and disaster medicine are opening up knowledge in the last few decades and we need to harness all resources to maximize the opportunities (Gold) in the crises. Hence, the motto: 'Be prepared...' by the Boys Scout applies in disaster medicine management. We are to prepare for war in times of peace! Although, the practitioners of the present-day disaster medicine have responded with the available resources to manage the aftermaths of Tsunami in South East Asia, Hurricane Andrew, Indian earthquake, the Madrid train bombings and the World Trade Center attack, to name a few, there is still room for improvement. Nigeria, the giant of Africa, has suffered from both natural and man-made disasters such as flooding, drought, civil unrest, genocide and insurgency in the last few decades It is well known that the country is very important in the continent in terms of its population size, weak health systems and poor disaster preparedness but the narrative is changing lately with emerging emergency physicians, traumatologists and critical medicine specialists. Hence, a need to report efforts being made by emergency disaster, and acute (critical) care medicine specialists in Africa During disasters, the hospital play a critical role in providing essential medical care to the injured in the communities. Some of the earliest disas-

ters have caused enormous casualties and mortalities with resultant disruption of the community infrastructures with grave impact on physical, social and psychological well-being of victims and residents of the communities involved. There is a need for regular audit and updates in disaster preparedness and relief.

Methodology

With permission and authorization from relevant authorities, video recordings of the scene were obtained for use and display. In addition, the records from the hospital admission book and outcome/transfer records were reviewed and the data documented at entry for the blast injury victims provided salient information on clinical symptoms, physical examination findings and available laboratory parameters. Clinical progress notes and case files were also reviewed revealing clinical conditions at entry (with triage early warning scores mostly in the RED spectrum), on clinical progression with treatment, and the clinical outcomes and dispositions.

The incident report and emergency response

It was a sad moment on 17/01/2024 in Ibadan as there was a massive explosion which occurred between 7:30 and 7:45 pm, at the Old Bodija axis (close to Dejo Oyelese street) behind the late Chief Bola Ige's residence. It was reported that explosives: dynamites being stored by some expatriate miners living in one of the apartments at the area generated palpable shock waves in the close and distant places from the site of event. The said site was visited same night by security personnels, emergency rescue teams with mobilization of doctors living within and outside the Bodija radius to be emergency ready, many of the victims had various levels of blast injury ranging from depressed skull fractures with underlying surface collection requiring neurosurgical intervention, different degrees lacerations and avulsions, to long bone fractures, early post-traumatic seizures tympanic membrane perforations, etc .Victims received treatments at various private hospitals, general hospitals, primary health centers, and the University College Hospital, Ibadan. Members of medical and allied health associations were mobiilized to render emergency services with broad range of medical experts and teachers of medicine and surgery available to render selflessness emergency services. Medical Doctors, Medical and Nursing students in UCH with paramedics and good Samaritans were allotted into groups and were on standby to receive the casualties and or mortalities. There was a great cohesion and synergy of all doctors across the state both in the private and public health Institutions as an expression and affirmation of the Hippocratic Oath to attend to all victims. Some also assisted with voluntary blood donations as a social and medical assistance to those who need emergency blood transfusion at presentation. Medical directors in private practice came to rescue the overwhelmed emergency department of the University College Hospital, Ibadan and also attended to victims at no fees in their facilities, with commendable promptness in response and treatment initiation. The University College Hospital management, State hospital management, and the Nigerian Medical Association (Oyo State branch) worked closely with security agencies and relevant agencies of the state and federal governments to sensitize the public on safety tips and basic first-aid approach on and off site especially on the need to avoid the site, suggest alternative safe routes and avoid clusters or overcrowded areas. Mortalities were recorded as many lost their lives during this unfortunate incident. In the 33-bedded emergency department of the University College Hospital Ibadan with patients already on admission, effective sorting, triage, transfers were made with mobilization of the necessary resources by the hospital management and effective rescue operations initiated.

Figure a

https://www.thecable.ng/photo-story-before-and-after-images-of-houses-affected-by-ibadan-explosion

https://www.youtube.com/watch?v=zThMbtlHZrI

https://oyotruth.com/2024/01/22/ibadan-explosion-gov-seyi-makinde-presents-bodija-explosion-report-to-tinubu-in-abuja/

https://radionigeria.gov.ng/2024/01/23/mastermind-of-ibadan-explosion-to-face-the-law-fg/

https://www.google.com/url?sa=i&url=https%3A%2F%2Frealnewsmagazine.net%2Fminister-visits-university-college-hospital-ibadan-empathises-with-blast-victims%2F&psig=AOvVaw0v9DLvPLqUN4dI_II10JVZ&ust=1706374707197000&source=images&cd=vfe&opi=89978449&ved=2ahUKEwj7p72jw_uDAxUwd6QEHe5gAdMQr4kDegQIARBJ

The Ibadan result

We recorded a phenomenal success! Of the 17 blast victims presented 10 discharged alive with 7 still alive, on admission for discharge home, as at the time of the writing. No life was lost under the emergency care!. Both males and females were affected; more females were injured! Ages of victims were in the young, and adult brackets with a few in the pediatric age-bracket also reported (most presented to the peripheral facilities though). We received 3 BIDs (Brought-in-Deads) for transfer to the morgue for embalming and other necessary procedures and rites. This is a commendable clinical outcome for patients who were victims the face of the catastrophe. Although, there were countless other casualties who presented at other peripheral facilities (private, state-owned hospitals) on account of proximity for care. It was reported that many lost their lives on-site with survivors and victims having wide range of injuries as noted by the health care providers.

System audit and appraisal: identified gaps' lessons and recommendations.

We had a dynamic, supportive and we'll coordinated hospital management team with support from the college of medicine experts, and the university of Ibadan medical community; an excellent 'synopsis of medical care'.

Transport of victims from scene of blast was commendable done by volunteer hospital health workers, FRSC officials, the Police and Military (Joint efforts by the Oyo state and UCH hospital management).

Preparation for direct, primary blast injuries was good but secondaries were not well prepared for. We need disaster protective kits for health workers, and security personnels at or close to site of the blast.' METHANE' protocol was adopted for the disaster management with effective triage and sorting plan. In the future, other disaster management protocols can be added to cater for dynamicity, variations, local peculiarities and needs of victims in the context of available resources for a better disaster management plan.

- A standard disaster medicine medical stores for supply of emergency drugs and consumables in time of disaster at no cost (fully funded by the government) should be envisaged.
- A need for standardized and formalized disaster medicine locally adaptable protocols and algorithms needs to be designed for active use.
- A disaster medicine fellowship should be introduced into the curriculum of emergency medicine fellowship program (s) in Nigeria coordinated by emergency, family and internal medicine faculties.
- A trauma simulation center should be built and operationalized by emergency medicine specialists, surgeons and traumatologists primarily.
- Emergency massive blood transfusion units should be integrated into the emergency medicine organogram domiciled and operationalized in the emergency department in consonance with hematology department.
- There is need for construction and effective operationalization of trauma centers that can provide 3-tier emergency medicine services for the region, state and nation at large starting with the University College Hospital Ibadan Nigeria as pilot.
- A trauma rehabilitation center for disaster victims Integrated in to the hospital for management of post-trauma sequelae operationalized by clinical psychologists, psychiatrists and emergency physicians.
- There is need for well equipped, well-coordinated ambulance services readily available for activation using a designated official telephone line or other means of effective communication known to citizens and residents across board.
- Compensation plan for survivors and deceased by the governments.
- Punitive measures and sanctions to the company or individuals found culpable by the investigation panel probing the disaster (set-up by the state and federal governments).
- There is need for development of remote technologies in disaster medicine education.
- Emergency response was prompt and timely: this is a plus
- The level preparedness is good but it can be much more better (an area for close attention). ------There is need for health professionals to keep themselves updated about all medical-related knowledge and practical skills about disaster preparedness and readiness.
- As children were also affected though most presented at peripheral facilities on account of proximity, a sub-specialty in pediatric disaster medicine care and trauma management will better position specialists in better treatment approach for the children and adolescents.
- The security of the hospitals providing care is also important in itself, we need to put measures in place to ensure safety of our" Inns" through active surveillance technologies provision and an 'antidote' system in the event of disaster to keep hospitals safe.

- Worthy of note and commendation, we were effectively supported by the state and federal ministry of health with most medical bills footed by the governments.
- Effective chain of command to be formalized and accessible for activation by the public and the physicians.
- Gaps identified to be filled through an strong political commitment, regular disaster management policy review and operationalization, and good physician- public relations
- Operationalized legislation, policies and laws to prevent or man-made and also mitigate natural disasters.
- Security technologies for surveillance and monitoring in disaster mapped zones; a need for epidemiologic mapping of disaster at national, regional, state and local level with correct data to inform effective planning, emergency response and decision-making through coordinated actions of health policy analysts, policy makers and epidemiologists. We need more disaster medicine specialists to join the train! [1-5].

Conclusion

Disasters are in usually epidemic and pandemic proportions with severe impact on human and material infrastructures, leaving 'scar' on the mind, body and spirit of victims and families. With high-quality preparedness, top-notch resuscitation protocols for casualties, morgue services for mortalities, effective treatment and rehabilitation plan for complications provision and accessibility to oxygen, blood and other resources, the impact (immediate, short-term, and long-term) will be mitigated to the barest minimum. Also primary, secondary, tertiary and quartenary care providers should have spectral compliment in disaster medicine care provision with effective loop communication lines. Disaster medicine which is the real 'meat and bone' of emergency medicine; disaster medicine is the ultimate in emergency medicine and we must all join hands to nip the unsavory impact in the bud or minimize the attendant effects to the barest minimum. Also, there is a place for clinical anatomists, epidemiologists, and other professionals in Emergency, Disaster, and Sport Medicine education, training, service delivery, research and administration by the instrumentality of a functional collaborative research network system for informed decision-making process by key stakeholders. We shall get there in Nigeria via effective tran-instituitional emergency medicine and disaster medicine exchange programs!

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Conflict of Interest

Neither financial interest nor any conflict of interest exists.

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