

WG 5 (Combat Casualty Care)

October 7 Hamas-led Attack on Israel

Yuval Gilor, Sharon Gutman Gilor.

Israel Defense Forces, Medical Corps, Tel Hashomer.

Introduction:

On October 7, 2023, Hamas and several other Palestinian terrorist groups launched coordinated armed incursions from the Gaza Strip into southern Israel, attacking both civilian and soldiers population. The 51st battalion was assigned in Kissufim base that day, and its soldiers were the first to fight against the terrorists. Dr Gilor, as the battalion surgeon, accompanied by his wife Dr Gutman- Gilor, also a battalion surgeon, treated dozens of military casualties in the operation center of the base, becoming one of the mass casualty incidents of that day.

Methods:

The medical personnel during the mass casualty incident were two physicians and three combat medics. The operation center was used as an improvised casualty collection point, and it was divided into two separate parts (soldiers who required resuscitative measures and the other for the rest). The team had the standard equipment for an infantry medical team, including 2 endotracheal intubation kits, 1 cricothyroidotomy kit, 2 chest tube kits and 2 dried plasms bottles. The casualties presented different types of injuries: penetrating head injury, penetrating chest and abdomen injury, shrapnel wounds, blast injuries and combat stress reaction. Evacuation wasn't possible for more than two hours due to presence of terrorists on the main roads. When it became possible, the evacuation was performed using non-medical armored vehicles and without any medical escort, except one intubated patient who was escorted by a combat medic.

Results:

All the casualties were evacuated successfully, only one died later at the hospital ER.

Out of the casualties, only one wasn't physically injured and had only a temporary combat stress reaction. Many of the casualties who suffered from massive external limb hemorrhage treated themselves with CAT tourniquet applications. Two soldiers had penetrating head injury and one of them was intubated and ventilated. Three soldiers had a penetrating chest injury and one of them had a chest tube. Two soldiers were in a deep hemorrhagic shock and one of them received one plasma bottle.

Conclusion:

Managing mass casualty incidents with limited resources can lead to extreme workload on the medical team. In this case, the presence of two physicians allowed every casualty better treatment. Moreover, the soldiers' tourniquet applications skills had a major role in treating bleeding casualties who were not able to reach the casualty collection point.

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Mortality Review and Determination of Causes of Death Among IDF Personnel

Pavel Eidelman.

Israel Defense Forces, Medical Corps, Tel Hashomer, Department of General Surgery and Transplantation, Sheba Medical Center, Tel-Hashomer, Faculty of Medicine and Health Sciences, Tel-Aviv University.

Introduction:

Understanding the causes of death among military personnel is critical for improving battlefield medical care, forensic identification, and future preparedness. The events of the "Swords of Iron" war presented unique challenges, requiring adjustments in forensic procedures and casualty management. This review outlines IDF fatality processing across three key periods: routine evaluations before October 7th, the mass casualty incident on October 7th, and the fatalities sustained during the "Swords of Iron" war.

Pre-October 7th: Routine Forensic Evaluations:

Before the war, fallen IDF personnel underwent structured forensic examinations at the "Shura" victim identification facility. The standard process included external examination, forensic pathologist and dental assessments, and documentation for official identification.

The October 7th Mass Fatality Incident:

The Hamas attack on October 7th resulted in the deaths of over 300 IDF soldiers and many hundred civilians, overwhelming Israel's forensic capabilities. In response, the IDF's technological and logistics directorate assembled emergency forensic teams, including physicians, dentists, radiology and DNA technicians, and other specialists dedicated for IDF fatalities. These teams processed 414 victims in the first week, conducting postmortem CT scans on 308, collecting dental imaging for 300, DNA samples for 356, and fingerprint records for 326. Despite the absence of professional forensic pathologists, rapid identification efforts were crucial in managing the unprecedented scale of fatalities.

The "Swords of Iron" War Fatality Analysis:

From October 27, 2023 (beginning of ground maneuver), IDF fatalities were examined at "Shura". Each case underwent external examination, forensic documentation, and postmortem imaging, with findings integrated into the IDF Trauma Registry. An expert review assessed causes of death, preventability, and survivability, contributing to ongoing improvements in combat casualty care.

Conclusion:

The evolving nature of military conflict necessitated adaptations in forensic procedures and casualty management. Lessons learned from these events will help refine future battlefield medical and forensic capabilities.