G58 Explosion Scene in Sri Lanka

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After attending this presentation attednees will gain knowledge about specific injury patterns pertinent to suicide bomber related explosion scenes. It further studies two different types of suicidal bomb explosions compared to other circumstances and touches on the clinical aspects of victim management.

This presentation will impact the forensic science community by highlighting extend of damage and complexness of investigations when close target explosion attacks are made by using relatively smaller quantity of explosive substance in a form of a "body bomb."

In our days, explosives manufacturing has found rapid advancement and available in mass scales to become a weapon of choice in many parts of the world for military, commercial, criminal, and organized terror activities due the ease in handling, storage, and transportation; need in lesser quantity to cause devastating effects; simplicity of detonating mechanisms, etc. Injuries due to high explosive devices were often seen in Sri Lanka during past two decades, especially during the period from 1995 to 1997 and from 2004 to 2008 due to escalations of civil conflict. The suicide bomber became a hallmark of the Srilankan explosion scene. Two categories of suicide bombers have been observed: "body bomb" which may be described as a person with high explosive device attached to his body in different forms of attire including that of a pregnant woman; and, "Carried bomb" using other movable device, explosive effects of which had distinguishably reflected in the overall injury pattern.

There have been at least 125 attacks on civilian and military targets since 1986. The incidents have predominantly taken place in the capital city and autopsies on most of the cases were performed at the Office of the Judicial Medical Officer in Colombo. The findings of autopsy examinations, scene examination, and information gathered from the police sources and evidence given in the subsequent Court proceedings have been used for this study. The number of victims was excluded from the study due to unavailability of details of autopsy examinations conducted at different places. The present study is mostly emphasized on qualitative comparison of injury patterns with six principal types of explosive injuries described in the literature.

Analysis of injury patterns observed in the suicide bombers and the victims of these incidents revealed characteristic features of medico-legal and scientific importance. The following classification of explosive injuries is found to be more applicable to the local explosive scene, especially in the cases of individual suicidal bomb attacks: (a) a suicide bomber; (b) combined effect injuries including total disruption; (c) blast wave injuries; (d) burns; (e) injuries due to flying missiles; and, (f) circumstantial effects. The absence of shrapnel wounds, severe disruption of the trunk, and extensive burns of the transected body margin and presence of a cyanide capsule made a suicide bomber clearly distinguishable from other victims. The injury pattern of the victims was modified by the effects of the surroundings and the distance from the centre of explosion.

The recognition of the above injury patterns and their bodily effects found to be important in crime-scene investigations, subsequent legal proceedings, and organization of preventive measures. The effects of the modern vehicles with impact resistant desings on the gravity of injuries have also been considered.

Explosion Injuries, Suicide Bomber, Injury Pattern

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