



G54 Suicidal Jumping

Istvan Szentmariay, MD, DMJ, and Gyorgy Dunay, MD, Institute of Forensic Medicine, Semmelweis University, Budapest, Hungary, Ulloi Street 93, Budapest, Budapest, Hungary*

The study was undertaken to investigate the pattern of injuries, the survival times, and the demographics of people who committed suicide by jumping from a height.

The authors reviewed 495 forensic autopsies performed at the Institute of Forensic Medicine, Semmelweis University, Budapest, Hungary between 1996 and 2001 in which the manner of death was suicidal falling from height (all jumps resulted from suicidal intent). During this period suicidal jumping was responsible for 16 % of all suicides in males and 18% in females. In the case of suicidal jumping the male/female (m/f) ratio was 1.35; the overall suicide m/f ratio was 1.6.

Important to note is that 78% of the males and 82% of the female victims immediately upon impact in a public place. The hospital was listed in the authors' database as the place of death in 13% of the males and 14% of females, although a fraction of these people actually committed suicide by jumping while being treated in a hospital. Statistical data pertaining to what department and why the jumper was hospitalized will be provided. Of the remote suicides, 4% of males and 2.4% of females could not reach the hospital and died during EMS transportation.

Demographic analysis shows that age distribution curves run fairly together for males and females after the age of 40. In younger age groups a strong male predominance was present (m/f ratio was 10 under 20 years of age, 2.7 in age group between ages 21-30 y).

The most important aspect of this work evaluates the injuries sustained during landing. All victims sustained wide range of multiple injuries. The frequencies of bone injuries (upper, lower limbs, pelvis, vertebrae, chest, and cranium) and soft tissue injuries (chest, abdominal organs, and aorta) were collected and analyzed statistically. The most common injury patterns were fractures of lower extremities and the spine. The Injury Severity Score was used to grade injuries for quantitative comparison with the height of falling. Most suicides (two-thirds) had serious mental illness. The blood alcohol level in toxicological reports on all victims was also reviewed. Overall 19% had positive results, although alcohol was present in blood of 38% in the youngest age group (16-20 years of age) and it was present in only 8 % in the oldest victims (age 71 and over). Positive alcohol tests revealed alcohol levels less than 0.15% in 62% of the jumpers and 17% of positive cases showed blood alcohol levels higher than 0.25%.

Monthly periodicity revealed the highest number of cases occurred in June and the lowest number of cases occurred in February in both sexes. Weekday analysis revealed that Monday is a critical day for males and Tuesday for female suicidal jumpers.

Falling From Height, Injury Severity Score, Survival Time