

Profile of Defense Injuries in Homicidal Deaths: A Prospective Study

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Abstract

Background: The Presence of defense wound and its conclusive interpretation would be helpful to judiciary to solve many of such cases as it suggests that the victim was conscious, at least partly mobile and not taken completely by surprise. **Material & Method:** The profile of defense injuries was studied amongst the 100 cases of homicidal deaths, autopsies of which were conducted at mortuary of Government Hospital, Rajkot in a period of one and half year. **Results:** Defense injuries were seen in 28% cases of total cases of suspected homicides. Maximum number (37.5%) of cases were belongs to age group 41-50 years. Majority were male victims. Amongst all cases, 46.4% had defense wounds over left half of the body, while it was bilateral in 32.2% cases. Only sharp objects were inflicted in 60.7% of cases, while 28.6% cases had defense injuries by blunt object. Majority of defense wounds were present over upper limbs (84.9%). 36.2% of all defense injuries were sustained over forearms, may be due to nearest to the perpetrator.

Key words: Defense injury; Homicidal deaths; Sharp weapon.

Introduction

Crime is an act of moment, a psychologically creative one whose totality is beyond expression in language. Worst of the worst and the cruelest crime that can be committed by a human being upon a human being is nothing but homicide. In assault of any kind, the natural reaction of the victims is to protect him. The limb nearest to the perpetrator is used for protection and leads to infliction of defense injuries over that part of the body. Defense wounds form a valuable medicolegal evidence

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for reconstructing the fatal incidence in homicidal deaths. Presence of defense wound and its conclusive interpretation would be helpful to judiciary to solve many of such cases as it suggests that the victim was conscious, at least partly mobile and not taken completely by surprise. Defense wounds are the result of immediate and instinctive reaction of the victim to save himself [1]. They are resulting from raising the arm to ward off the attack from the assailant or by gasping the weapon.

Defense injuries are commonly found on the side of the victim's body that mirrors the hand in which the attacker is holding a knife. For example, if an attacker is right handed, it will be more common for defensive injuries to be seen on the left side of the victim. The classic position of defense wound is over forearm and palmer surface of hands [2]. When attempts are made to ward off the attack, wound will be seen over back of forearm or back of hand. While in cases of gasping of the attacker's weapon, wounds will be seen on palmer aspects of hand. These injuries may be found

on lower limbs, on thighs or on shins, if individual is lying on the ground and blows are made on lower parts of the body or genitalia. Back of the body may be injured if victims tries to curls back or turns back. The most obvious defense injuries are seen in knife attacks, as the victim often attempts to ward off the thrusts by seizing the weapon. If weapon grasped by victims has two sharp edges, wounds are present on the palm as well as on the palmer aspects of the fingers. With the sharp weapon, wounds will be incised wound, stab wound or sometimes chop wound. With the blunt weapon, wounds will be abrasions, contusions, lacerations or abraded contusions. They can also occur in firearm injuries when an arm is raised in a desperate attempt to shield the trunk or the head.

Though the presence of defense wound constitutes strong evidence in favor of homicide, absence of defense injuries does not exclude probabilities of homicide, as it may be absent if victim is attacked from behind or by surprised; is unconscious or under influence of alcohol or drugs.

Materials & Methods

Presence of defense wound and its characteristics were studied in homicidal deaths autopsies of which were conducted at Dept. of Forensic Medicine, P. D. U. (Govt.) Medical College & Hospital, Rajkot, Gujarat during the period of 1st January, 2009 to 31st august, 2010. During the study period, total 100 cases of homicidal deaths, confirmed by investigating officers before autopsies or found to be homicide at autopsies or declared as homicide during investigation, were studied.

Autopsies were conducted by routine autopsy-procedures and with routine autopsy instruments. Interpretation of defense wounds was done after considering all circumstantial evidences. Age and sex of deceased, body side and part sustaining defense wound were studied. Detailed and meticulous examination

was done regarding type of injury and weapon used for offence.

Observations

As shown in Table 1, defense wounds were present in 28 cases (28%). In the study, age group of 41-50 years had defense injuries in 37.5% cases, followed by age group of 31-40 years (33.3%) and 61-70 years (33.3%). Same was seen in 28.9% cases of age group 21-30 years. No incidence was observed below 20 years and above 70 years.

According to Table 2, amongst all male victims, 28.2 cases had defense wound. It was 27.3% for female. Both gender had almost same finding in this study. As shown in table-3, 71.4% of laborer, died due to homicidal act, had defense injuries. It was 53.3% for those who are engaged in some sort of business. In case of housewives, it was 28.6% (Table 3).

Defense wound present only over the left side of body was observed in 46.4% incidences while on both sides of body was observed in 32.2% incidences. In case of male, defense wound present over left side of body was observed in 45.6% cases, while in case of female, defense wound present in left side of body was observed in 50% incidences (Table 4).

Amongst all cases having defense injuries, sharp weapons were used in 60.7% cases; while in 28.6% cases, blunt weapons were inflicted. Firearms were used in 7.1% cases (Table-5). Total defense wounds caused by sharp force were in 67.1% cases. 61.6% of all defense injuries were incised wound. Defense wound caused by blunt force were in 26% of cases. 6.9% defense wounds were caused by firearm. 84.9% of all defense injuries were present over upper limb. 36.2% defence wounds were present over forearm, followed by defense wounds present over hands in 20.5% of cases (Table 6).

Table 1: Age Wise Distribution

| Age Group | Total Cases of Homicide | Presence of Defence Wound | % |
|-----------|-------------------------|---------------------------|------|
| < 1 year | 03 | - | - |
| 01 - 10 | 04 | - | - |
| 11 - 20 | 05 | - | - |
| 21-30 | 38 | 11 | 28.9 |
| 31-40 | 27 | 09 | 33.3 |
| 41-50 | 16 | 06 | 37.5 |
| 51-60 | 05 | 01 | 20.0 |
| 61-70 | 03 | 01 | 33.3 |
| Total | 100 | 28 | 28.0 |

Table 2: Sex Wise Distribution

| Sex | Total Cases | Presence of Defence Wound | Percentage |
|--------|-------------|---------------------------|------------|
| Male | 78 | 22 | 28.2 |
| Female | 22 | 06 | 27.3 |
| Total | 100 | 28 | 28.0 |

Table 3: Occupation Wise Distribution of Cases

| Occupation | Total Cases | Presence of Defence Wounds | Percentage |
|------------|-------------|----------------------------|------------|
| Business | 15 | 8 | 53.3 |
| Laborer | 14 | 10 | 71.4 |
| Housewife | 14 | 4 | 28.6 |
| Cultivator | 07 | 1 | 14.3 |
| Service | 07 | 1 | 14.3 |
| Student | 06 | 1 | 16.7 |
| Unemployed | 06 | 1 | 16.7 |
| Driver | 05 | 1 | 20.0 |
| Not Known | 05 | 1 | 20.0 |

Table 4: Sex Wise Distribution of Cases According to Body Side Involved

| Sex | Right Side | Left Side | Both Sides | Total |
|--------|--------------|--------------|--------------|--------------|
| Male | 06 (27.2) | 10 (45.6) | 06 (27.2) | 22 (100%) |
| Female | - | 03 (50%) | 03 (50%) | 06 (100%) |
| Total | 06 (21.4) | 13 (46.4) | 09 (32.2) | 28 (100%) |

Table 5: Distribution According to Mechanical Force Inflicted to Produce Injuries

| Type of Mechanical Force | No. of Cases | % |
|--------------------------|--------------|------|
| Sharp | 17 | 60.7 |
| Blunt | 8 | 28.6 |
| Sharp & Blunt | 2 | 3.6 |
| Firearm | 1 | 7.1 |

Table 6: Distribution of Pattern of Defense Injuries According to Affected Body Part

| Body Part | | Sharp force | | Blunt force | | | firearm | Total | % |
|------------|-----------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------------|--------------|
| | | I. W. | S.W. | Abr. | Cnts. | Abr-Cnts. | | | |
| Upper Limb | Scapular region | 04 | - | - | 01 | - | - | 05 (6.9) | 62 (84.9) |
| | Shoulder | 04 | 02 | - | 04 | - | - | 10 (13.7) | |
| | Arm | 04 | - | - | 01 | 01 | - | 06 (8.2) | |
| | Elbow | 01 | - | - | - | - | - | 01 (1.4) | |
| | Forearm | 12 | - | 05 | 04 | - | 01 | 03 25 (36.2) | |
| | Hand | 11 | - | - | - | 01 | 01 | 02 15 (20.5) | |
| Lower Limb | Thigh | 07 | 02 | - | - | - | - | 09 (12.3) | 11 (15.1) |
| | Leg | 01 | - | - | - | - | - | 01 (1.4) | |
| | Ankle | 01 | - | - | - | - | - | 01 (1.4) | |
| Total | | 45 (61.6) | 04 (5.5) | 05 (6.9) | 10 (13.7) | 02 (2.7) | 02 (2.7) | 05 (6.9) | 73 (100) |
| | | 49(67.1) | | 19(26) | | | | | |

Abbreviations: I.W: Incised Wound, S.W: Stab Wound, Abr: Abrasion, Cnts: Contusion, Abr-Cnts: Abraded Contusion, L.W: Lacerated Wound

Discussion

In the study, 28.00% of victims had defense wounds, which is comparable with Sheikh et al [3], Mohanty et al [4], Hugar et al [5] and Dalal et al [6]. It is clear that 1/4 to 1/3 cases had defense wounds among these studies, suggesting the defensive reactions of victims to either ward off the attack or to hold the weapon. It also suggests the active state of mind of victims even during violence. Majority of victims having defense wound were of age between 41 to 50 years, followed by age group of 31-40 years. These findings are comparable with the findings of Sheikh et al [3]. Percentages of victims sustaining defense wounds were almost same in both genders in this study, suggestive of same state of defense approach in both, male and female.

In present study, defense wound present only over the left side of body was observed in

46.4% cases while on both sides of body was observed in 32.2% cases. These findings are comparable with the observation of Sheikh et al [3] and Mohanty et al [4]. While according to findings of Pollnen MS [7] and Hugar et al [5], it was more common on right side.

Sharp weapons were used in 60.7% of cases; while in 28.6% of cases, blunt weapons were inflicted. Hugar et al [5] had observed that sharp force and blunt force were used in 77.5% and 10.5% of cases respectively. While according to Mohanty et al [4], use of sharp and blunt force was in 57.4% and 11.1% cases respectively. Defense wounds caused by sharp force were 49 cases (67.1%); and that by blunt object were 19 cases (26%). Of all injuries caused by sharp weapons, 45 cases (61.6%) were incised wound. Only 5 cases (6.9%) defense wounds were caused by firearm. Defense wound present over forearm was seen in 25 in number (36.2%) followed by 15 in

number (20.5%) present over hand. According to Sheikh et al [3], Mohanty et al [4] and Hugar et al [5] it was observed that majority of defense wounds were present over forearms.

It can be concluded that the victims would be well aware of risk of life when sharp weapons would be raised to them. And in reaction, they may raise their forearms to ward off the attack or grasp the weapon in hand, causing injuries over forearms or hands or any other parts of body.

Conclusion

- Defense wounds were seen in 28% cases of homicidal deaths. Both genders had same rate of occurrence of defense wounds.
 - 37.5% victims of age group 41-50 years had defense injuries, followed by age group 31-40 year and 21-30 year, in descending order. Higher proportion was observed among laborers and business occupants.
 - 46.4% cases had defense injuries over left side of body, while 32.1% cases had bilateral occurrence.
 - Sharp weapons were used in 60.7% cases while 28.6% cases had defense injuries by blunt force.
 - 67.8% of all defense injuries were caused by sharp force. It was 23.73% and 8.47% for blunt force and firearm, respectively.
- Of all defense wounds, 84.9% injuries were sustained over upper limbs. Majority of them were present over forearm, followed by hand.

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