

Original Research Paper

Significance of Defence Wound in Homicidal Death

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Abstract

The present study was carried out prospectively on 111 homicidal victims coming for medico-legal autopsy to the mortuary of SCB Medical College, Cuttack, Odisha from October 2010 to September 2012 to know the significance of defence wound by determining its incidence and pattern of wound. Out of the 111 homicidal deaths, 31 cases (27.92 %) were found with defence wound. Males were approximately 1.43 times more defensive than females. Most common age group showing defence wound was 21-30yr. Sharp weapon was used in 45.16% cases where as blunt weapon in 38.71% cases. Most common type of defence wound was incised wound (29%), followed by bruise (22.58%).

Most common site involved in upper limb was forearm, followed by hand and arm. Active defence wound were found in 16.12% cases and passive defence wound in 64.51% cases. Left hand showed most defence wound (41.93%) as compared to bilateral hand involvement (32.25%) and right hand involvement (25.8%). A careful and thorough post-mortem examination of defence wound may give clues to the circumstances prior to death of the victim.

Key Words: Defence wound, Homicidal death, Post-mortem examination

Introduction:

Defence wounds are the result of immediate and instinctive reaction of the victim to save himself. [1] These defence wounds may be of considerable medico-legal significance, as they indicate that the victim was conscious, at least partly mobile and not taken by surprise. [2]

Traditionally it may be active or passive defence wound. Active defence wounds occur when the victim grasps the knife with hand and the injury thus located on palmer aspect of hand. The passive wound is sustained when the victim raises their hands or arms to protect the attacked body region and in this case the injuries will primarily be located on the extensor side. [3]

As a result of defence the wounds produced are bruises, abrasions, lacerations, incised wounds over the extensor or ulnar surface of forearm, wrist, back of hand, knuckle, palm and lateral / posterior aspect of upper arm. Fracture of the carpal, bones, metacarpals, digits, and ulna may occur.

Defence wound may also be found in lower limbs. [1, 2] The type of injury will depend upon the type of weapon used and site involved. Bruises, abrasions and lacerations are produced by blunt object while in stabbing with a single edged weapon, if the weapon is grasped a single cut is produced usually on the palm of the hand or on the bends of fingers or thumb.

If the weapon is double edged, cuts are produced both on the palm and fingers. The cuts are usually irregular and ragged. A typical knife defence wound may be seen in the web space between the base of the thumb and index finger, when the blade is grasped. [1, 2]

Defence wound indicate homicide. But its absence does not rule out homicide as it may be absent in unconscious victims, when taken by surprise, attacked from back or under the influence of alcohol or drugs. [4] In females defence wound at times indicate sexual assault apart from homicide. [1] Also defence wound forms a valuable evidence for reconstructing the fatal incidence in homicidal deaths. [4]

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Aims and Objectives:

1. To know the pattern of defence wound.
2. To know the type of weapon used.
3. To know the site involved in defence wound.
4. To know the active or passive wound.

Materials and Methods:

The present study was carried out prospectively on homicidal victims consisting of 111 cases brought for medico-legal postmortem examination to the mortuary of S.C.B. Medical

College, Cuttack, Odisha from October 2010 to September 2012. Cases of homicide are selected by history, police inquest and autopsy findings. Out of these homicide victims the cases with defence wounds were considered and interpretations of these wounds were done after careful and complete consideration of all circumstances surrounding the offence and death. Defence wound cases selected in this series have non-fatal injuries over upper limb along with other fatal wound over body until otherwise excluded by history.

Defence wound present over palmar aspect of hand were considered active and all other sites of upper limb were considered as passive in this study. In this study each case of homicide showing defence wound were examined to determine the age, sex, type of injury, weapon used, site and side involved.

Observations:

In present prospective study among 111 homicidal cases, only 31 cases (27.92%) showed defence wound. (Table 1) Amongst 31 victims of homicide with defence wound, 26 cases were male and rest belongs to female. Males are approximately 1.43 times more defensive than females. (Table 2)

In our study out of total 31 cases of defence wound the age group 21-30 yrs showed maximum number of cases (38.71) followed by 31-40 yr. group. This study showed that the most common type of injury found in defence wound was incised wound (29%), followed by bruise. Sharp and pointed weapons were found in most of the cases (45.16%) to cause the defence wound followed by hard and blunt weapon (38.71%). (Table 4)

In present study we observed maximum number of defence wound over forearm (32.25%), followed by arm (22.58%) and over multiple sites (19.35%). (Table 5) Most of the defence wounds were passive type, followed by mixed and active type. Passive wounds are approximately four times more common than active type. (Table 6) Left hand showed most number of defence wound cases followed by both hands and right hand in our study. (Table 7)

Discussion:

The present work was undertaken on examination of 31 homicidal cases with various types of defence wound. The incidence of defence wound is 27.92% amongst the homicidal deaths. This finding support the study made by other authors. [4-8] Absence of defence in other cases may be due to the causes as described in the introduction. However higher incidences were also found by

many authors. [9-11] High incidence in these studies may be due to regional variation and physical build.

Males outnumbered females and males are approximately 1.43 times more defensive than females similar to other studies. [6, 10] This may be due to the dominant and outdoor works of males. Contrast to this study female had more defence wound than males in some studies [1] may be due to alertness of the victim.

Most of the defensive wound belongs to 20-30 yrs age group, which is supported by many authors. [6-9] It is the age of active and violent activities and thus making it the most susceptible age for defence also. Commonest age group 31-40 year was also found in Chattopadhyay S. study. [10]

In our study sharp and pointed weapons are most common weapon, followed by blunt weapon causing defence wound.

Most common type of injury found in defence wound is incised wound, followed by bruise. These are supported by authors. [4, 6-8, 10] It solely depends on the type of weapon used by the assailant at the time of crime. However in other study hard and blunt injury was the commonest type of defence wound. [9]

The commonest site involved in defence is forearm, followed by hand and the arm in this study. Forearm is the commonest site both in sharp cutting and blunt weapon similar to others. [6-8, 11] Forearm is the most movable part of upper arm and its extensor surface is more resistant to trauma as compared to other surfaces. In present study passive defence wounds are commonest, followed by mixed and then active type. [11] It shows reflex reaction of victim to save himself at the time of incidence.

Left side is commonly involved in defence wound followed by both sides and then right side. [4, 6, 10-11] This may be due to that most assailants are right handed and attacked from that side. Another possibility is that the victim will try to rescue his body through its weaker part i.e. usually left hands. In contrast to other study which showed right side is the most common side involved in defence wound. [7,8] This may be due to circumstantial and regional variation.

Conclusion:

Defence wound in homicidal cases is not only indicating the alertness of the victim but also the relative position of assailant and victim and types of weapon used.

A meticulous autopsy with the knowledge of common sites of defence wound

along with the circumstantial evidence plays a great role in determining the defence wounds.

So by considering the defence wound, manner of death and reconstruction of scene can be deducted to some extent and thus helps in better justice to the victim.

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Fig. 1: Bruise over Palmer Aspect of Left Hand shown by an Incision



Fig. 2: Incised Wound over the First Web Space of Left Hand



Table 1: Incidence of Defence wound

Incidence	Period of Study
	October 2010 to September 2012
Total Homicidal Cases	111
Defence wound Present	31(27.92%)
Undetermined	14 (12.61%)

Table 2: Sex wise Distribution of Defence Wound (n=111)

Sex	Cases	Percentage
Male	26 / 87	29.88%
Female	05 / 24	20.83%

Table 3: Age wise Distribution

Age groups (yrs)	Cases of Defence wound	Percentage
< 10	00	0
11 – 20	3	9.67
21 – 30	12	38.71
31 – 40	10	32.25
41 – 50	02	6.45
51 – 60	03	9.67
> 60	01	3.22

Table 4: Types of Injury in Defence Wound

Weapon Type	Injury Type	Cases (%)	Total (%)
Hard and Blunt	Abrasion	01 (3.22)	12 (38.71)
	Bruise	07 (22.58)	
	Laceration	04 (12.9)	
Sharp, Pointed	Incised wound	09 (29)	14 (45.16)
	Stab wound	05 (16.12)	
Mixed Type		05(16.12)	05 (16.12)

Table 5: Site Involved in Defence Wound

Site	Blunt Weapon	Sharp and pointed weapon	Total
Dorsum of hand	02	01	03 (9.67)
Palm	02	03	05 (16.12)
Forearm	04	06	10 (32.25)
Arm	03	04	07 (22.58)
Multiple Site	-	-	06 (19.35)

Table 6: Active or Passive Defence wound

Wound Type	Cases	Percentage
Active	05	16.12
Passive	20	64.51
Mixed	06	19.35

Table 7: Side involved in Defence wound

Side	Cases	Percentage
Right hand only	08	25.8
Left hand only	13	41.93
Both hands	10	32.25