

Original Article

The Role of Medical Man in Cases of Burns

1. Alvina Raja 2. Abdul Hamid 3. Delawar Khan 4. Salma Abbassi 5. Umair Jadoon

1. Asstt. Prof. of Forensic Medicine, AMC Abbottabad 2. Prof. of Forensic Medicine, FMC Abbottabad 3. Assoc. Prof. of Forensic Medicine, AMC, Abbottabad 4 & 5. Lecturers of Forensic Medicine, AMC, Abbottabad

ABSTRACT

Objective: Injuries caused by burns are a common occurrence in our country. Burn always evoke source of interest for forensic curiosity. The victim of burns needs a detailed scrutiny to evaluate the intentional status whether suicidal, homicidal or accidental to provide justice and to satisfy the weeping souls.

Design of Study: A retrospective study.

Place and Duration of Study: This study was conducted in the patients of burn at AMC from March 2005- May 2008.

Materials and Methods: All of the patients were included irrespective of sex and age. Record of burn patient was taken on performas in which their age, sex, type of burn, percentage of burn, causative agent and reason of burning were noted.

Result: Total 53 patients were included in the study. Among them 47 sustained accidental, 5 patients homicidal and 1 suicidal burns. Out of 47 accidental cases 7 patients died, 4 out of 5 homicidal cases died and only one suicidal case revived.

Conclusion: The patients who are registered as accidental or suicidal burns are not always so. A probe into the history of patients can bring out the key to truth. Moreover timely assessment of critical clinical conditions of patient is necessary to avail them their rights of justices.

Key Words: Burn, Medico-legal, Accident, Homicide, Suicide.

INTRODUCTION

status, education, type of burns sustained, percentage of area involved, fatality, cause regarding accidental, Homicidal cases are always masked by accidental or suicidal burns but by probing out the truth, medical professionals can contribute their servings to provide justice in order to keep peaceful society, by participating in reaching the real culprits of crime and preventing the further occurrence of similar crimes.

The cause and risk of burn injuries as well as the risk of burn death are influenced by age, sex, education status, economic circumstances, geographic location, season of year, occupation and prevalence of deliberate suicidal bomb blast causing homicidal burning. 73 percent of all the burns related deaths result from house fires and death rate is higher among children and elderly. Flame and chemical injuries are predominating type of burn in patients admitted in hospitals as compared to scalds which are though the most frequent form of burn injury, far less require admission.

The severity of burns ultimately related to cause and intension of burn. Thermal injury causes coagulation necrosis of the skin and underlying tissue to variable depth. It also has deleterious effect on all other organs of the body to the extent organ dysfunction and death. According to the severity burns can be classified into:

1. 1st degree: Involves only skin epidermis with vasodilatation of arterioles and capillaries resulting in erythema which is painful.

2. 2nd degree: Involves detachment of epidermis from dermis resulting in blister formation with a surrounding area of hyperemia which is again a painful condition.
3. 3rd degree: Involves entire thickness of skin both epidermis and dermis with massive necrosis and heal by scar formation but there is no pain.
4. 4th degree: Burn involves deeper tissues, subcutaneous tissues, muscles and bones.

To calculate area involved and see the extent of burns surgical "Rule of Nines" is sufficient.

A large area involved maybe more dangerous to life than a deeper, more localized burns. It is generally considered that 30-50 percent involvement of the total body surface is incompatible with survival.

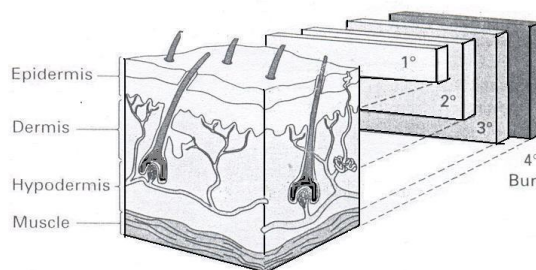


Fig. 1. Schematic demonstrating the correlation of depth-of-injury nomenclature with anatomic structures of the skin.

MATERIALS AND METHODS

In this study, 53 cases of burn are included in Ayub Teaching Hospital from March 2005 to May 2008. Their record regarding age, sex, socioeconomic suicidal and homicidal are taken on performa specially designed for this purpose. 47 out of 53 cases were accidental, 5 were homicidal and 1 was suicidal. Female: Male ratio was-32:21. All Homicidal cases were females. Majority of them belonged to lower socioeconomic group and low education. More extensive and deep burns were seen in homicidal cases.

RESULT

Total 53 patients were included in the study. Among them 47 sustained accidental, 5 patients homicidal and 1 suicidal burns. Out of 47 accidental cases 7 patients died, 4 out of 5 homicidal cases died and only one suicidal case revived.

Age (yrs)	Accidental burns		Homicidal burns		Suicidal burns		Total
	Female	Male	Female	Male	Female	Male	
0-10	5	9	-	-	-	-	14
11-20	11	8	3	-	1	-	23
21-30	7	2	2	-	-	-	10
31-40	1	-	-	-	-	-	02
41-50	-	-	-	-	-	-	-
> 60	2	2	-	-	-	-	04
Total	26	21	5	-	1	-	53

Female to male ratio among accidental cases is 26:21, but among homicidal cases and suicidal there are 100% females.

DISCUSSION

The forensic pathologist is concerned with the cause of burns and fatal cases and must recognize the type of the burn whether the burn he finds could cause fatal result and whether the distribution of burns is consistent with the H/O case. It is obvious from the study that women always remained helpless at the hands of men and suffered rather fatal forms of violence and even at those critical times they are held under threat to utter the truth about their cause of violence.

Homicidal cases in our study are a special field of study. We have seen that all women with an age from 15-30 years were with more than 60 percent burns. Otherwise in accidental cases people of all the ages were seen and they had rather lesser degree of burns covering almost 5 to 30 percent area. It is also seen that all homicidal cases were initially registered as accidental but later on after taking proper history in the absence of any influencing agents (relatives) they uttered reality.

In taking dying declaration, the role of doctors is vital for the safety and well being of human and society. Due to amendments in criminal procedure code 1898 which essentially addresses itself to grievous hurt by burn resulting and especially to cases where such injuries cause the death of the injured person. It also enjoins the concerned medical men to record the statement of burnt person immediately on arrival to ascertain the circumstances and cause of burn injuries. This statement is considered accepted in evidence as dying declaration, if the injured person expires due to these injuries.

It is seen that even with most extensive burns some period of survival is common and that period is sufficient to make a statement. In one case the driver of a chemical tanker which caught fire, survived 24 hours with full thickness skin burns involving his entire body, except for the soles of his feet.

It is also clear that incidence of homicidal burns are far less in region of Abbottabad or Hazara as compared to Rawalpindi

Again the point to be noted that lower socioeconomic group is related with low literacy rate which intern is the basis of carelessness in accidental cases. Suicidal cases should always be scrutinized. Circumstances surrounding the case give rise to suspicion until suicide is considered.

CONCLUSION

More meticulous medicolegal scrutiny is required in every case of burning and timely promptly taking statement of person without external influence can bring about remedy in the prevention of homicidal cases. So a sour part of truth can be changed into a sweet candy.

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Address for Corresponding Author:

Alvina Raja,
Asstt. Prof. of Forensic Medicine,
Ayub Medical College, Abbottabad.
0333-5035613