Original Article

Clinico-etiological profile of burn and non-healing wounds at tertiary health care centre

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Abstract

Introduction: The prevention or at least control of burn wound sepsis is absolutely vital, if mortality rate in the major thermal burns is to the lowered to an acceptable level. Meticulous surgical care of the burn wound and intelligent programs of topical therapy have achieved good result in recent years." Stone H.H. (1973) **Aims and Objectives:** To study Clinico-Etiological Profile of Burn and Non- Healing Wounds at Tertiary Health Care Centre. **Material and Methods:** Patients of burn wounds and non- healing wounds admitted in Govt. medical college hospital. Aurangabad, over a period of jan.1990 to Jan, 1992 is included in this study. Out of 50 cases studied, 40 cases are of burn and 10 cases of non- healing wounds. **Result:** In Our study we have observed that Maximum number of cases were seen in the age group of 0 to 10 years i.e. 17(37%) cases M:F ratio was 4:3 approximately. burn cases studied are 40 (80%) and number of non- healing wounds are 10(20%) non- healing wounds were of mainly traumatic in origin (6 cases; 12%). A single case each of vascular, diabetic, malignancy and post - operative etiology was studied. 40 burns wounds, 27 had superficial burn and 13 had deep burn while in the group of non- healing wounds there were 3 cases of superficial ulcers and 7 cases of deep ulcers. **Conclusion:** The clinico-etiological factors are helpful for the management and future prevention of Burn and non -healing ulcers

Keywords: Clinico -Etiological Profile of Burn, Non- Healing Wounds.

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INTRODUCTION

The prevention or at least control of burn wound sepsis is absolutely vital, if mortality rate in the major thermal burns is to the lowered to an acceptable level. Meticulous surgical care of the burn wound and intelligent programs of topical therapy have achieved good result in recent years." Stone H.H.(1973). There are many problems to be solved in the management of burns of lowering the mortality rate. The main problems are-the exact patho-physiology of burns, The role of toxaemia, the problem of skin cover in extensive burn and the control of infection of the burn wound. In a burned patient, the large raw area in like a culture plate, in which the organisms can multiply. Some degree of bacterial contamination is inevitable. The importance of bacterial contamination is inevitable. The importance of bacterial contamination was shown by Aldrich (1933), dunbar (1974) and Cruickshank (1935). Aldrich claimed that so called "toxemia" of burns was the results of infection. By 1960 strepto and staphylococci organisms were controlled by adequate antibacterial agents. However a further altered ecology resulted in the emergence of pseudomonas, the first "Amphibiont". Globally, approximately 2.5 lakh deaths occur every year, with majority of cases from low and middle income countries. Burns is one of the major cause of mortality and morbidity in India with around a million people affected by burns every year.[2] Lack of doctors and medical facilities to take care of burn wounds, decreased awareness among general population and rising cost of medical care has major impact on prognosis of the disease.[4] In India, mortality due to burns is more common in female gender than in male gender and occurs against a complex background in which the cause - accidental or non-accidental, suicidal or homicidal is unclear.[3]

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MATERIAL AND METHODS

Patients of burn wounds and non- healing wounds admitted in Govt. medical college hospital. Aurangabad, over a period of jan.1990 to Jan, 1992 are included in this study. Out of 50 cases studied, 40 cases are of burn and 10 cases of non- healing wounds were selected into study.

RESULT

Table 1: Showing the Age Wise Distribution of Patients

Age in years	No. of Cases	Percentage(%)
0-10	17	34%
11-20	10	20%
21-30	11	22%
31-40	4	8%
41-50	4	8%
51-60	3	6%
61-70	1	2%
Total	**50**	**100%**

The observation table shows that, the number of patients studied were in the age group from 6 months to 70 years. Maximum number of cases were seen in the age group of 0 to 10 years i.e. 17(37%) cases. About 75 cases lie in the age groups up to 30 years.

Table 2: Showing Distribution as Per Sex

Sex	Number of cases	Percentage (%)
male	29	58%
female	21	42%
Total	**50**	**100%**

From the above table, it is seen that 29 cases male while 21 cases were female; so M:F ratio was 4:3 approximately.

Table 3: Showing Etiological Factors

Etiological factor	No. of cases	Percentage (%)
Burn wound	40	80%
Non healing wounds	10	20%
Total	**50**	**100%**

It is seen from the above table, that number of burn cases studied are 40 (80%) and number of non- healing wounds are 10(20%)

Table 4: Etiological factors in non- healing wounds

Etiological factor	No.of cases	Percentage (%)
Infective	--	--
Traumatic	6	12%
Varicose veins	--	--
Vascular	1	2%
Diabetes	1	2%
Malignancy	1	2%
Post- operative	1	2%
Total	**10**	**20%**

The above table shows that the non- healing wounds were of mainly traumatic in orgin (6 cases; 12%). A single case each of vascular, diabetic, malignancy and post - operative etiology was studied.

Table 5: Distribution of the Patients as per the depth of the ulcer in burn and non- healing wounds

Etiology	Superficial	Deep	Total
Burn	27	13	40
Non healing wound	3	7	10
Total	**30**	**20**	**50**

The above table reads that out of the 40 burns wounds, 27 had superficial burn and 13 had deep burn while in the group of non- healing wounds there were 3 cases of superficial ulcers and 7 cases of deep ulcers.

DISCUSSION

Most of the injuries related to burns occur in low and middle income countries with almost half of these cases occurring in south East Asian Region.[2]The study included 154 burn case victims and assessed their demographic and epidemiological details. Females predominated males in the ratio of 1:0.8. Similar findings have been observed in studies conducted at different parts of the country[5-7] whereas the studies conducted in northern part of India, Jaipur and Singapore has shown male predominance.[8-10] Female predominance in our study can be due to nature of household work with which they are associated and might be related to dowry deaths. When age distribution of burn victims was assessed it was noted that more than half of the victims were in the age group of 21-40 years which is corroborated by the studies done at Northern states of India.[1,4] Higher incidence in this age group is explained by the fact that they are generally more active and exposed to hazardous atmosphere at home and at work. Prognosis becomes worse with an increase in the total body surface area affected by the burn injuries. In cases where the TBSA is, 15% the survival rate is 100%. However with a TBSA>86% mortality was 100%. The above findings have been confirmed by the observations of the present study. Similar observations were noted in studies done at Karachi and in central part of India which have reemphasized the correlation.[11, 12] In Our study we have observed that Maximum number of cases were seen in the age group of 0 to 10 years i.e. 17(37%) cases M:F ratio was 4:3 approximately. burn cases studied are 40 (80%) and number of non- healing wounds are 10(20%) non- healing wounds were of mainly traumatic in origin (6 cases; 12%). A single case each of vascular, diabetic, malignancy and post - operative etiology was studied. 40 burns wounds, 27 had superficial burn and 13 had deep burn while in the group of non- healing wounds there were 3 cases of superficial ulcers and 7 cases of deep ulcers. These findings are in confirmatory with Bhagawan B. Darshan *et al* (2015)[13]

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