

ANALYSIS OF FACTORS CONTRIBUTING TO MORTALITY IN BURNS PATIENTS, RETROSPECTIVE STUDY

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Abstract

Burn injury result in a significant physical and psychological trauma to the burn patients. The highest mortality is among low socioeconomic status countries. This study aimed to analyze factors contributing to death in burn patients in Basrah General Hospital burn unit.

One hundred fifty patients died in Basrah General Hospital unit from January 2000 to December 2001, retrospective analysis of their records including; residency, age, sex, percentage of total body surface area burned, cause and time of burn.

Most patients were females 69% (04 patients), males 31% (64 patients), high mortality in age group (10-29years), 53% (79/150), females predominate in this age group 58%, males 39%. Males predominate 26% (12/46) over females 13% (13/104) at age group 0-3 years. Most of mortality within percentage of total body surface area burn of (31%-40%) is 18% (27/150), percentage of burn of 91%-100% is 21% (32/150). Commonest cause of death is infection 57% (85 patients), hypovolemia and inhalation injuries in 31% (47/150 patients). Number of deaths at first seven days post burn is 84% (126/150).

It is concluded that the commonest cause of death is infection. High risk age group is children and young females which reflect lack of social security. Therefore preventive measures are essential.

Introduction

Burn injury is a common world wide health problem¹⁻¹¹ resulting in a significant physical and psychological trauma to the patient¹²⁻¹⁴. It affects 1% of the population each year³. Billions of dollars are now spent in treatment of burn patients⁶, this is more in low socioeconomic countries thus predicting the out come of burn injuries can yield important insights into organization and delivery of care services. The aim of this study is to analyse factors contributing to mortality in burn patients in Basrah General Hospital burn unit.

Patients and method

One hundred and fifty patients who died at our unit in Basars General Hospital between January 2000 and December 2001 have retrospective analysis of their records. The information documented

were age, sex, residency, time of death and total body burned surface area.

Results

The following tables express results, most patients were females 69% (04 patients), males 31% (64 patients), high mortality in age group (10-29years), 53% (79/150), females predominate in this age group 58%, males 39%. Males predominate 26% (12/46) over females 13% (13/104) at age group 0-3 years. Most of mortality within percentage of total body surface area burn of (31%-40%) is 18% (27/150), percentage of burn of 91%-100% is 21% (32/150). Commonest cause of death is infection 57% (85 patients), hypovolemia and inhalation injuries in 31% (47/150 patients). Number of deaths at first seven days post burn is 84% (126/150).

Figure 1: Gender, shows that females are 69% (104 patients), and males 31% (46 patients).

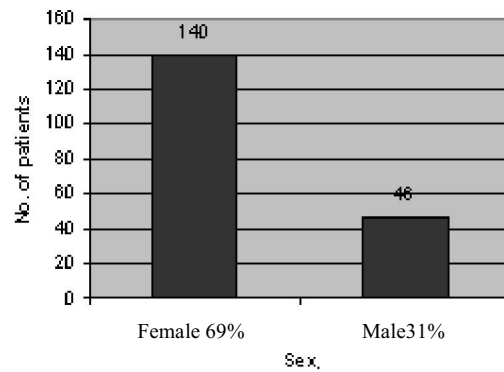


Figure 2: Shows high percentage of mortality was in range of age group (10-29 years) was 53% (79/150).

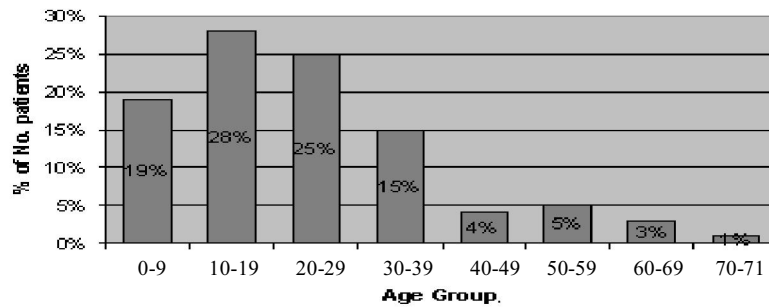


Figure 3: Shows high percentage of females 58% (61/104), than male 39% (no.18/46) with in range of age group (10-29 years), male patients predominate 26%(12/46) over females 13%(13/104) in age group of (0-3 years).

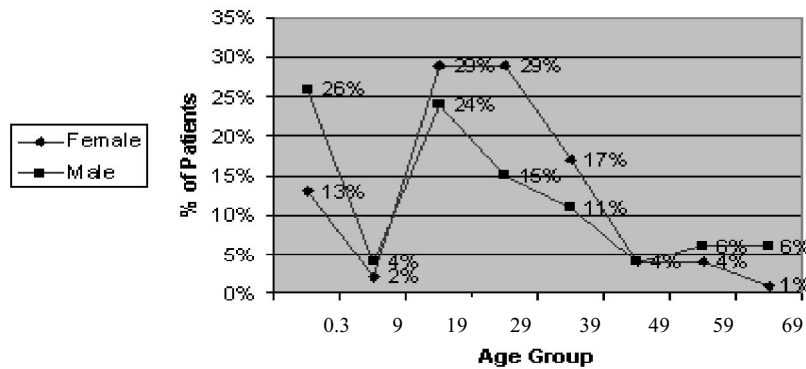


Figure 4: Shows high percentage of deaths in total body surface area burned (31%-40%) were 18% (27/150) and total body surface area burned (91%-100%) were 21% (32/150).

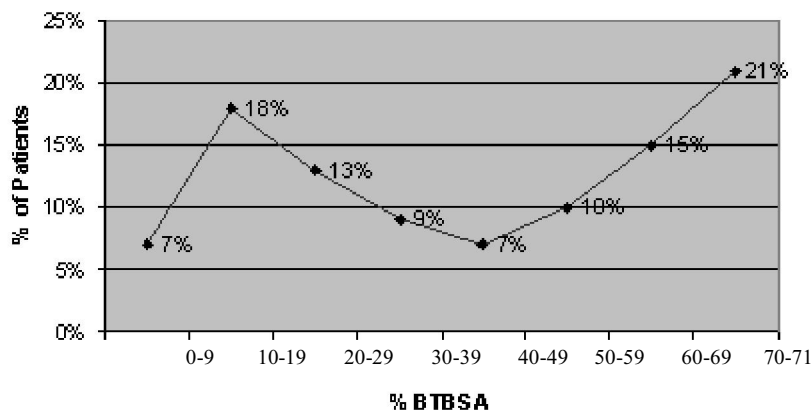


Figure 5: Shows high number of males 26% (31/46), in total body surface area burned of (31%-40%) and less number of females 14% (15/104), in total body surface area burned (90%-100%), percentage of females is higher 22% (23/104) than males percentage 20% (9/49) in the same total body surface area burned.

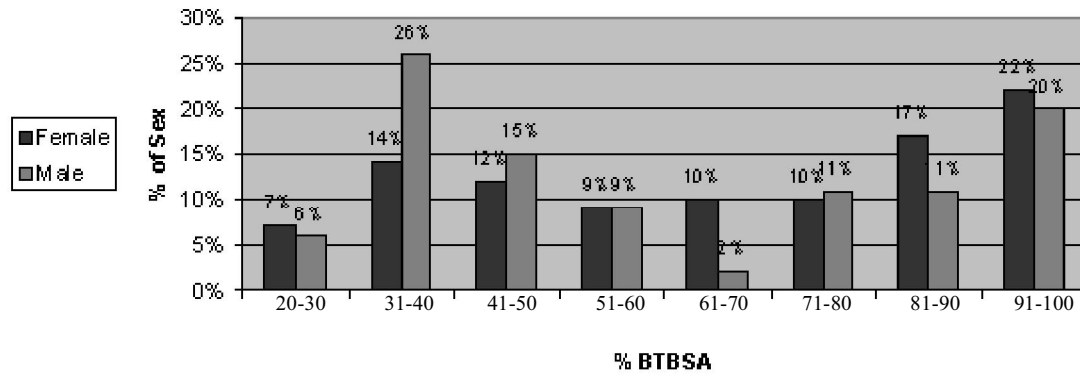


Figure 6: Shows most of deaths 84% (126/150) with in first seven days post burn (early post burn period), deaths with first three days 37% (47/126), after first week percentage of death 16% (24/150), in the eighth day to ninth day.



Figure 7: Shows commonest cause of death is infection 57% (85/150), hypovolemia and inhalation injury 31% (47/150), the remaining 12% (18/150) died in the remaining days.

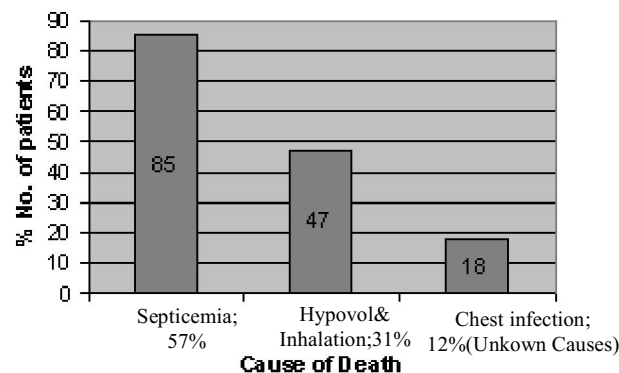
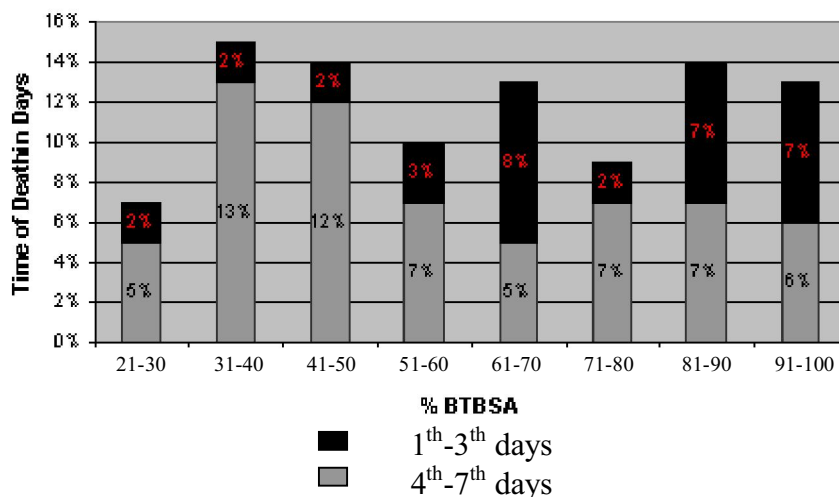


Figure 8: Shows high percentage of mortality in patients with total body surface area burned (81-90%), (91-100%) ,7%(22/126) , 17%(22/126) respectively in first three days post burn, high percentage of mortality during next half of the first post burn week period is13%(15/126) in tota body surface area burned (31%-40%), and 12%(15/126)in tota body surface area burned (41%-50%).



Discussion

Our study shows high mortality between age group 20-29 years with persantage of female predominate in this age group as in Cuba, Mauritius⁶ as they spent more time in the house also beacause of enviromental factors which causing them to become older and still not married, while males predominate in the age group (1-3year) this is because male in this age group more inquisitive and explorers⁶. The pattern of mortality is of increasing type since early life like in Honk Kong ,Uruguay⁷ with more in children and femaleS reflecting lack of socail security⁷. Percentage of children<10 years old is (21%) although it is less than what is reported in litreture (27.4%) which indicate neglincance and crowded families⁹.We have less mortality after age group >50 years, this is may be because our social set up that respect elderly people and affording good care for them. High mortality in patients with total body surface area burned (31%-

50%), body surface area burned (80%-100%), this because high percentage of children and females in these total body surface area burned , Mortality increases with increasing severity of burn⁵, most mortality occurs with in first seven days of admission one third of these mortality occurs in first three days most of them within total body surface area burned of(81%-90%),(91%-100%), this is because hypovolemia, inhalation injury¹⁵, in latter three days most of deaths occur with total body surface area burned (31%-40%), (41%-50%) ,this is mainly due to infection which is also the main cause of death after seven days post burn.

Conclusion

High mortality in females and children, indicates lack of social security, also Major cause of mortality is mainly infection and hypovolaemic shock, preventive measures against these factors should be adopted.

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