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Research Article

Most of the Pediatric Burn Injuries are Preventable by Implimentation of Some Local Stratiges

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Abstract

Background: Most of the burn Patients admitted to Pediatric surgery department at Jessore Medical College Hospital were due to hot water of electric jug, hot water for tea, unsafe warm vegetables, dale pot or hot ashes, unsafe electric socket, wire or instrument, unsafe corrosive like harpic or carbolic acid. It is not impossible to avoid these issues of burn. So all of we should be utmost aware to avoid this casualty.

Patients and Methods: A retrospective study was conducted on pediatric patient with burn at Pediatric surgery department of our hospital, from January 2018 to December 2018. The patients with burns of pediatric age were included. Following data were collected for analysis such as their number, age, sex, type of burn, agents of burn injury, body area, months variation, place of occurrence, time of the day, socioeconomic condition and duration of hospital stay.

Results: Total of 168 children was included in the study, where 86 were males and 82 were females. Male, female ratios were 1.049:1. Scalds were the most common burn injury (67%). Actually there is no potential seasonal variation. Most of we think that majority of burns occurs in winter. But, in our study among children, it increases before and after winter. Burns occur frequently at house hold settings i.e about 83%, and outside 17%. Hands were the most common affected site (42%), next upper limb(18%). Majority of the burnt children came from low socioeconomic family.

Conclusions: Majority of the Pediatric burns are avoidable. Scalds were the most common form of burns. More frequency of burns occur in house setting and low socioeconomic family. Hands and upper limbs were more commonly affected area. Our children is our future, so why we should not cautious to serve their better health. If we try heart and soul to prevent this calamity. Focusing on burn prevention policy, which is locally feasible, may be implicated for prevention of pediatric burn injuries.

Keywords: Pediatric Burn Injuries; Agents; Prevention

Introduction

Burns are destructive type injuries that changes most of patient's emotional status and hampered normal of life. The World Health Organization estimates that more than 300,000 people die annually from fire-related burns worldwide [1]. In spite of many burn prevention policies, many people suffered burn injuries in every year. Burn in children is a fatal health problem. Burn injuries in children are the results of behavior that can be closely related to developmental stages [2]. Children affected burn in various ways of domestic environments. Children under 3 years is too early aged and fail to recognize the hazards of the nearby burn agents those are responsible for burn injuries, that's why it is important to recognize these agents and find out the probable way to avoid it. Policy

of burn prevention may be varies in different community, such as proper education, spreading of awareness via social and print media like television, radio, press, posters etc.

Patients and Methods

A retrospective study was conducted on pediatric patient with burn at Pediatric surgery department of our hospital, from January 2018 to December 2018. All patients with burns of pediatric age were included. Data of their number, age, sex, type of burn, agents of burn injury, body area, monthly variation, place of occurrence, time of the day, socioeconomic condition and duration of hospital stay were recorded. Burn children's were divided into five groups on the basis their ages: 0-2 year, 3-5 years, 6-9 years, 10-14 and 15-18 years. Injury agents were classified as different type's scalds, hot ashes, electronic apparatus, flame, contact to hot object, and chemicals. Analysis of data regarding their number, age, sex, type of burn, agents of burn injury, body area, monthly variation, place of occurrence, time of the day, socioeconomic condition and duration of hospital stay.

Results

In the study, out of 168 children, 86(51%) were males and 82(49%) were females (M:F, 1.049:1) (Figure 1). The age group ranged from 0 day to 18 years (Figure 2). The majority of children 92 (54.76%) belonged to the toddler age group and 32(19%) were infants. The most common agents of burns were hot liquids i.e scalds, accounting for 67%, followed by hot ashes burn (13%), and electrical burns (8%), flame burns (6%), corrosive burn (3%), and others (2%) (Figure 3). No significant seasonal variations were encountered. Majority of the burn injuries were seen, before and after winter season (39%). More frequently occur at morning between 6 AM to 10 AM and evening 5 PM to 11 PM (Figure 4). 83% of the burn injuries occurred in house hold setting, rest (27%) at outside (Figure 5). 168 children with burns having the involvement different area of the body. Burn at hand was the most common, (42%), upper limbs without hand 18%,lower limb 17%,trunk 12% and head-neck 11% (Figure 6,7). Most of the patients had came from low socioeconomic families (95%) and their supervision were inadequate. Hospital stay various from 1day to 30days depending on percentage and depth of burn.

Discussions

In our hospital, among the injury of children, burns are more frequent. As well their physical, social, and psychological health will be affected. Hospital stay varices depending on severity of burn. Complications sometimes fatal even death. As the most of the patients are belong low socioeconomic family, so it is extra burden to bear their treatment cost, some times out of capacity.

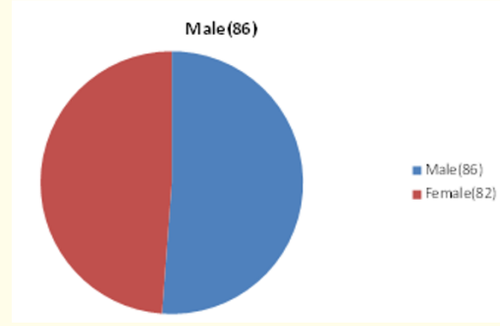
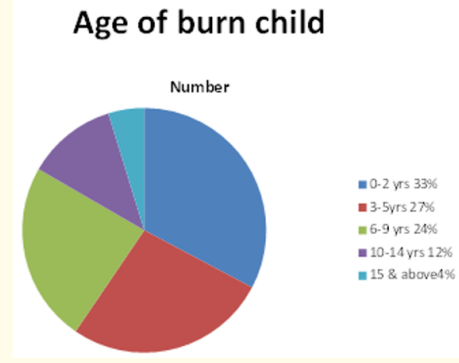


Figure 1



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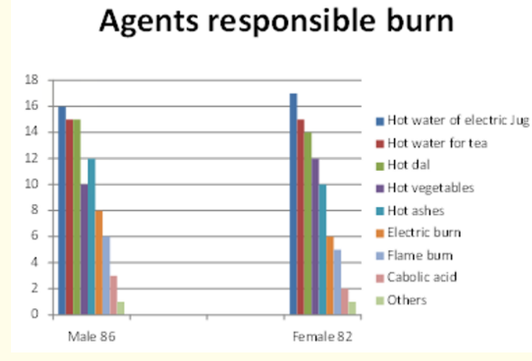

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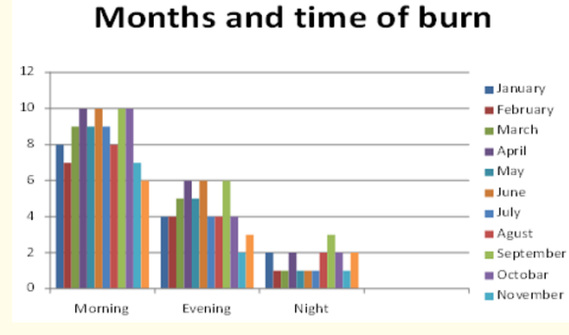

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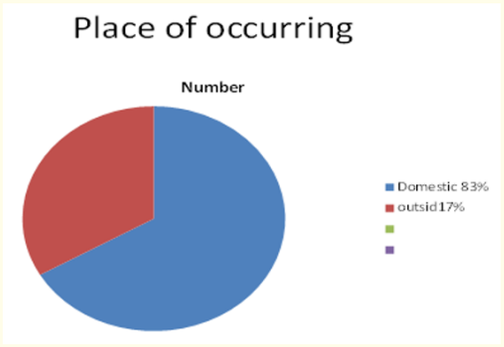

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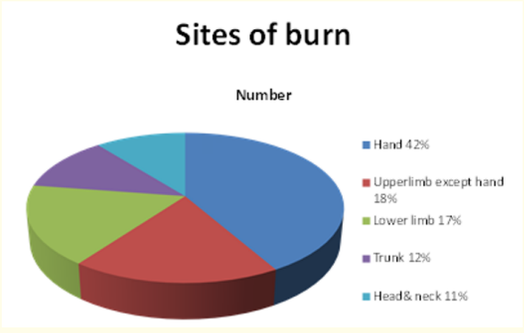

Figure 6

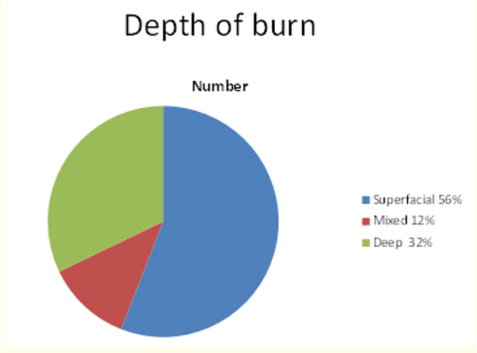

Figure 7

From 168 children with burn injury data were collected pertain their number, age, sex, type of burn, agents of burn injury, body area, monthly variation, place of occurrence, time of the day, socioeconomic condition and duration of hospital stay. Toddlers group are being highest rate of burn injury, as they have unpredicted curicity about new things belong to their environment. This age group has been reported to be most vulnerable to burns in other studies also [3-6]. When motor skill development outpaces cognitive development, disaster may result [7,8]. In our study, 86 were males and 82 females (M:F, 1.049:1).Burn injury due to thermal contact to hot water of conventional electric jug, hot tea or water for tea, unsafe hot dale or vegetables which are belongs to scalds. Burn by unsafe hot ashes, electronic appratus, fire, hot object, chemicals in domestic use, pestiside and friction occasinally occur. So from observation we had seen, the thermal burns were most common (89%), out of which, scalds (67%), followed by hot ashes (13%) and electric burn (8%), flame burns (6%) and chemical burn (3%) others (2%). Most of the pediatrics burn injuries caused by hot liquid [9,10]. We had also find out liquid burn i.e scalds were caused by hot water, hot tea or water for tea, hot dale, hot vegetables or milk. Scald among young childrens were due to their unpredicted curicity and movement at home by touching and overturning vessels containing hot water of conventional electric jug, hot tea or water for tea, unsafe hot dale or vegetables. After scalds, hot ashes burns were common. Unsafe hot ashes are kept out of oaven or within unsafe muddy oaven. Electric burns were in thirteen children (8%). Different studies have reported variable frequency of the involvement of different anatomical sites [11,12]. Hands have been reported to be frequently injured by burns [13]. In this study also, hands were the most common site involved (42%). It was also noted that the involvement of hands was most common irrespective of the type of burns. This is due to curicious behaviour of children seeking foods or playing object and there by all on a sudden touching near object developed burn injury. Actually no seasonal variation that we have observed. Approximately 90% of the burns are due to household setting. We also noted that the majority (83%) of burns occur at home. Most of the thermal burns occurring at morning and evening by hot liquid, vegetables or hot ashes. Injury may occur while under supervision of one or both the parents [14]. Most of the childrens were within low socioeconomic families (95%). Most of the mothers (75%) were housewives and the rest were service holder or day labourer. The fact that most of the pediatric burns occur at home provides opportunities for its prevention [15]. To prevent this accidental injury, while using coventional electric jug for warming water or hot water for making tea we should kept the child at safe area and also keeping hot vegetables pot or warm dale pot at scured area and out of reach the child. Ashes should not kept an open area, as it may be fatal by any means at any time. Electric socket should be covered and electric instruments should out of reach the child. Strictly prohibition of the child to play with flame, fire, explorer or easily flammable liquid like petrol, sprit, kerosene etc. Keeping all corrosives like herpic, carbolic acid in a child proof container and out of reach the child. Parent are requesting to keep the children away from the kitchen while food preparation. Also ask to avoidance of ground level cooking, securing the hanging electric cords or table cloth which can be easily grasped and pulled, and turning the pot handles away from edges of the shelves should be performed [16]. So the parent education about burn prevention is essential

and timely demand. Campaigning about the policy of burn prevention and also spreading awareness through social and print media such as television, radio, press, and posters. Education about the prevention of burn injury should be included in school text book, so that every elder siblings can take care their younger ones. Effective pediatric burn prevention stratiges can be established by acquring proper knowledge of the parent/guardian and also children at school level by proper training and exercise it in the community.

Conclusion

Majority of the Pediatric burns are avoidable. Focusing burn prevention strategies, consistent with local circumstances such as-spreading awareness via social and print media like TV, radio, press, and poster etc and proper education about prevention of burn can reduced this avoidable calamity. It is utmost demand to safe our children, safe our future.

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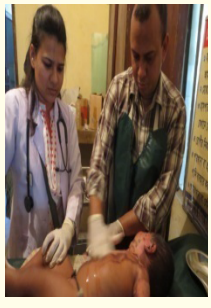
<tr><td>  </td><td colspan="2">wkï mvR©vix‡Z fwZ©/ ewn©t wefv‡M AvMZ ‡ewki fvM †cvov ‡ivMxi Kvib,cvwb Mig Kiv B‡jw±ªK RM/ Mig Pv‡qi cvwb/ KovB‡q ivLv Mig ZiKvwi/ Mig Wvj,`ya/ Zz‡j ivLv QvB/ AiwÿZ B‡jw±ªK m‡KU/ AiwÿZ nvwc©K/Kve©wjK GwmW `vqx|myZivs GB ¸wji gvivZ¡K RLg †_‡K euvPvi Rb¨ Avgv‡`i †K m‡e©v”P mZ©KZv Aej¤^b Ki‡Z n‡e|

Most of the burn Patients admitted / arrived at OPD of Pediatric surgery department in this hospital, due to hot water of electric jug / hot water of tea / unsafe warm vegetables or dal pot or hot ashes/ unsafe electric socket or instrument/ unsafe corrosive like harpic or carbolic acid. So we should be utmost aware to avoid this casualty.</td></tr>
<tr><td>  </td><td>1. hLb cvwb Mig Kiv B‡jw±ªK R‡M cvwb Mig Kiv nq/ Pv‡qi Rb¨ cvwb Mig Kiv nq-*ZLb Avcbvi ev”Pv‡K mveav‡b ivLyb|*

1.While you using electric jug for warming of water or hot water for making tea-*keep your child safe*.</td><td>  </td></tr>
<tr><td>  </td><td>2.Avcbvi Mig ZiKvwii cvÎ mveav‡b ivLyb, hv‡Z ev”Pv bvMvj bv cvq|

2.Keep your warm vegetables pot safe and out of reach the child.</td><td>  </td></tr>
<tr><td>  </td><td>3.Avcbvi MigWvj/Mig`y‡aicvÎmveav‡bivLyb, hv‡Zev”PvbvMvjbvcvq|

3.Keep your warm dal pot safe and out of reach the child.</td><td>  </td></tr>
<tr><td>  </td><td>4.‡Lvjv ¯’v‡b QvB ivL‡ebbv/KvD‡KivL‡Z w`‡eb bv, Bnv †h‡Kvbgyû‡Z© gvivZ¡K ÿwZ †W‡K Avb‡Z cv‡i|

4.Ashes should not keep an open area, as it may be fatal by any means at any time.</td><td>  </td></tr>
<tr><td>  </td><td>5.B‡jw±ªK m‡KUmgyn †X‡K ivLybGesB‡jw±ªK hš¿cvwZ mveav‡b ivLyb, hv‡Z ev”Pv bvMvj bv cvq|

5.Electric socket should be covered and electric instruments should out of reach the child.</td><td>  </td></tr>
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	6.KVifv‡e Avcbvi ev"Pv‡K Av¸b,evwR,cUKv/`vn¨ c`v_© †hgb †c‡U&ªvj, †Kiwmb,w¯úwiU BZ¨vw` wb‡q †Ljv †_‡K weiZ ivLyb| 6.Strictly prohibit your child to play with fire, explorer or easily flammable liquid like petrol, sprit, kerosene etc.	
	7.gvivZ¡K ÿwZKviK Zij ‡hgb nvwc©K/Kve©wjK GwmW myiwÿZ ivLyb, hv‡Z ev"Pv bvMvj bv cvq| 7.Keep all corrosives like harpic, carbolic acid safe and out of reach the child	
	g‡bivL‡eb, Avcbvimvgvb¨ fz‡jiKvi‡bGKwUev"PviRxeb †h ‡Kvbmgqwecbœ K‡iw`‡Zcv‡i| Remember that, a little bit mistake by you, can causes endanger child life or death.	

Figure a

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