SUMMARY

Man suffered from burn injuries since he began using fire. Burn therapy began at man's first adverse encounter with it. The widely empiric remedies were conceived in ignorance and of course were excusable.

Fortunately, enough knowledge is now available to permit a rational evaluation of agents currently available or newly proposed for the treatment of burn.

A topical agent should be antiseptic, non-antigenic, non-toxic systemically or locally. It should minimise the vaporisational heat loss and of course should be of low cost.

While waiting for the future technique of skin culture growing on a medium and then doing skin grafting at present there is still lot of scope for search of an ideal dressing material for burn wound. The present work was undertaken and designed to evaluate the role of daily simple cleaning with 0.9% normal saline and Neosporin-Betadine dressings in cases of burn.

Forty two patients were kept in the study. Out of 42 cases, 33 were females and 9 were males.
Majority of them belonged to younger age groups. 9.52% were under the age of 15 years. As much as 69% cases belonged to the age group between 16-30 years and 16.6% patients belonged to the age group between 31-45 years.

Major cause of burn appeared due to thermal injury. In our study, most of the burn cases were from rural areas. 85.7% cases belong to rural areas and only 14.3% belonged to urban areas.

83.3% burns were sustained inside the house and only 16.7% cases were in the outdoor. Among the females, the majority were housewives and sustained burns due to kerosene while cooking.

Cases were divided into 2 groups. One group comprising of 18 patients, of which 10 had superficial burns and 8 deep, were treated with daily simple cleaning with normal saline. The other group of 24 patients, of which 8 had superficial and 16 deep burns was treated with Betadine-Neosporin dressings.

All the cases with superficial and deep burns upto 60% of body surface area who were admitted within 7 days of the thermal injury were included in this study irrespective of their age, sex, socio-economic status, contamination of wound and mode of injury.
In all cases, patients were observed for pus formation, control of infection, rate of healing and quality of scar.

In one group, only simple cleaning was done daily. The burn areas were gently debrided, necrosed skin and blisters were removed. The burn areas then cleaned with 0.5% Savlon. This was followed by thorough washing with sterile saline (0.9% sodium chloride) solution. Spirit was applied over the adjacent skin. This process was repeated as and when required.

In other group, Neosporin powder was sprinkled over the burn area till a uniform coating was obtained. The Betadine lotion was applied in drops over this till a thick yellow crust was formed over the burn areas. In deep wounds, betadine was injected by hypodermic needle in subescharotic spaces. The response of superior burns to simple daily cleaning was promising and good. 40% of burns had healed by the 15th day. In case of the superficial burns treated by EVP plus Neosporine, 37.5% had healed in this time. At one month, 70% of the superficial burns had healed in case of saline treated cases while 62.5% cases of the other group had healed. By 45 days, healing was complete in all the cases in either groups.

In case of deep mixed burns percentage of cases showing good healing was superior in the drug treated cases.
In these cases PVP + Neosporine had a greater role of play. The average healing time was shorter and the infection rate was lower.

Bacterial counts were lower in PVP + Neosporine group. PVP + Neosporine does effectively combat infection and reduces soaking and pus formation in comparison to simple cleaning with saline. Comparing the PVP+Neosporin dressings with daily simple cleaning with normal saline.

It was concluded that -

1. In cases of superficial burns daily simple cleaning has an important role to play and PVP + Neosporin may not have an additional role to play. Application of these drugs will add to the cost of the treatment without any additional benefit.

2. In case of deep burns, control of infection is better with PVP + Neosporin. By saline cleaning alone, healing can be achieved but it is relatively delayed. The incidence of soaking and pus may also tend to be higher. It may thus be advisable to use PVP + Neosporin dressings in deep and infected cases as compared to daily cleaning with saline.

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