



Study of Ice Therapy in Wound Healing- Comparative Study in KMC, Katihar

Authors

**Dr Mohamed Ashraf Ali¹, Dr Md. Abdur Rahman², Dr Md. Arif Ansari³,
Dr (Maj.) M.M.Haque⁴, Dr Sohail Ahmad⁵, Dr Yasir Tajdar⁶, Dr Sohail Anwar Azami⁷**

¹Senior Resident, Dept. of Surgery, KMC, Katihar,

^{2,6,7}Junior Resident, Dept. of Surgery, KMC, Katihar

³Professor and HOD, Dept. of Surgery, KMC, Katihar

⁴Associate Professor, Dept. of Surgery, KMC, Katihar,

⁵Assistant Professor, Dept. of Surgery, KMC, Katihar,

Abstract

Wound healing is a complex process of wound to become healthy. There is so many methods which is applied to modify the process in respect of early healing, less time consumption, better scar etc. Here we have study the effect of ice therapy on wound healing in the department of surgery, KMC, Katihar, Bihar.

Introduction

Wound is a Breach in integrity of skin or subcutaneous tissue often which may be associated with disruption of structure and function. Wound may be acute/chronic, tidy/untidy, simple/complex, closed/open. Surgical wound classified as cleaned wound, clean contaminated wound, contaminated wound and dirty wound. Wounds healed by primary, secondary and tertiary intention. Wound healing affected by different factors like local factors mechanical injury, infection, edema, ischemic/necrotic tissue, topical agents, ionizing radiation, low oxygen tension, foreign body and systemic factors age, nutrition, trauma, metabolic disease, immunosuppression, connective tissue disorders, smoking etc. wound healing takes place in phases of hemostasis & inflammation, proliferation and maturation & remodeling.

Aims and Objective

To assess the efficacy of local ice therapy on the wound healing.

Method

Selected randomly 50 patient having different types of wound admitted in dept of general surgery KMC, Katihar. Patients were divided in two groups 25 in each group. In the first test group wound was cleaned with normal saline and ice was applied on the wound for about 10 minutes no antiseptic was applied. In the control group the classical antiseptic betadine and EC solution were used to dress the wound, besides the systemic antibiotics and other supportive therapy remain the same in the both group.

Investigation

CBC, BLOOD SUGAR, ESR, LFT, KFT for both group was done

Observation

There were dramatic improvements in the condition of wound in test group. Discharge disappear, healthy granulation tissue started soon. The foul smelling disappear, epithelialisation is also expedited as compare to the control group

Table 1: Age

Age group in years	Test group (25)	Control group (25)
0-20	15%	14%
21-40	40%	39%
41-60	30%	32%
61-80	15%	15%

Table 2: Sex

Sex	Test group(25)	Control group (25)
Male	16	17
Female	9	8

Table 3: Presentation

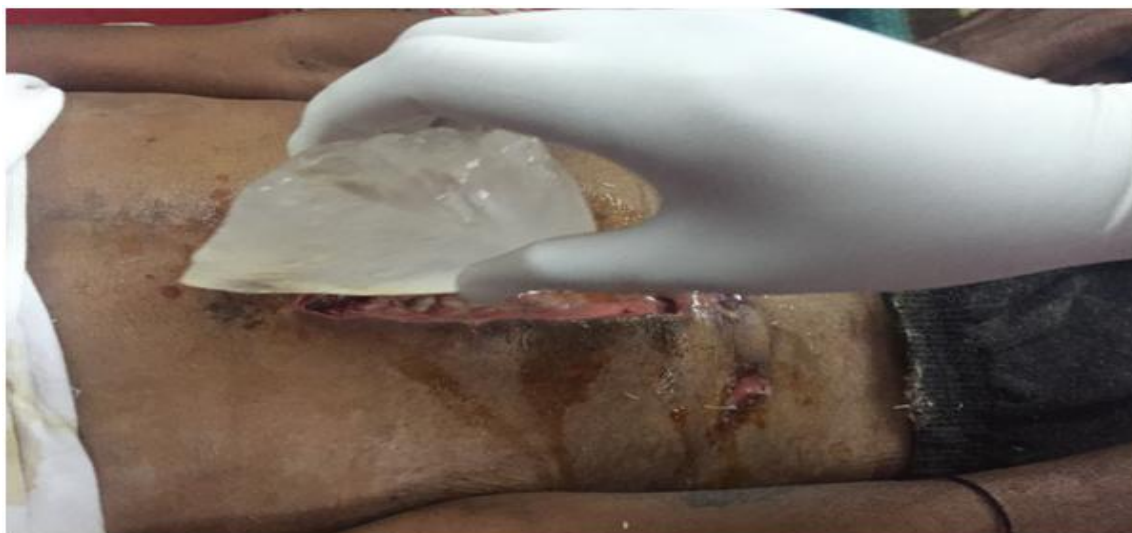
Presentation	Test group (25)	Control group (25)
Post traumatic wound	11	12
Post operative wound	14	13

Complication

Rigor in winter season if proper room temperature is not controlled.

Contraindication

Ischemic ulcer and allergic to cold

Pic. showing Ice therapy being used on the patient**Pic. showing initial wound and healed wound after ice therapy.**

Conclusion

This is an innovative method of treating wound in KMC, Katihar. Result is very exciting. The method is cheaper, easy and no extra medical personnel is needed. Attendant is trained to do the same thing. It is a painless procedure, early results are very exciting. Further studies in large group of patient can be carried out to standardise the method.

Bibliography

1. Liang D., Dalley D., Kirk J.: Ice Therapy in soft tissue injuries. NZ Med J 78 : 1973.
2. Haines J.: A Survey of recent developments in cold therapy. Physiotherapy 53: 222, 1967.
3. Laurel J. Freeman: Florida, Page-22, SUMMER 1995.
4. Fife CE. Wound care in the 21st century. US surgery. 2007: 63-64.
5. Babior, B.M. Oxygen-dependent microbial killing by phagocytes. N Engl J Med. 1978; 198:659.