

SURGICAL WOUND HEALING AFTER WOUND CARE WITH NORMAL SALINE OVER WOUND CARE WITH POVIDONE IODINE AMONG THE CLIENTS WHO HAVE UNDERGONE LAPAROTOMY.

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Abstract

The present study was aimed at comparing the surgical wound healing after wound care with normal saline over wound care with povidone iodine among the clients who have undergone laparotomy. The study was conducted among 30 clients who had undergone laparotomy. The tool used was wound healing assessment scale prepared by the investigator. Wound care with normal saline was given to group 1 and wound care with povidone iodine was given to group 2 according to the protocol prepared by the investigator. Study results revealed that there was no significant difference with the surgical wound healing after wound care with normal saline and povidone iodine.

Keywords: wound care, laparotomy, surgical wound healing.

advantages of normal saline are non irritant, cheap and help to wash out debris and dried blood out of newly formed wound. Normal saline has an onset of action 20-30 minutes and lasts for 2-4 hours. In the present situation, cost of medical treatment is a major issue influencing the patient and his treatment. Use of normal saline would be cost effective as the healing occurs without local antibiotics or disinfectants. It does not alter the normal bacterial flora of the skin and has no effect on blood flow in capillaries and on collagen. And it neither donates fluid nor draws it away from the wound bed. It helps to remove things that can irritate the underlying tissue as well as help to wash out bacteria. It relieves stiffness and muscle cramps and reduces redness and edema and hastens the healing of laparotomy.

Statement of the problem

A study to compare the surgical wound healing after wound care with normal saline over wound care with povidone iodine among the clients who have undergone laparotomy in a selected hospital at Ernakulum.

Objectives

- To assess the surgical wound healing after the wound care with normal saline.
- To assess the surgical wound healing after the wound care with povidone iodine.
- To compare surgical wound healing after wound care with normal saline over surgical wound healing after wound care with povidone iodine.

Introduction

Surgery is a technology consisting of a physical intervention on tissues, and muscle. Abdominal surgeries are one of the most commonly performed procedures in emergency conditions. A laparotomy is a surgical procedure involving a large incision through the abdominal wall to gain access into the abdominal cavity. The care of laparotomy wound is different from hospital to hospital. Simple principle of laparotomy wound healing is good blood flow, oxygen, nutrients, and absence of infection. Today when the cost of medical treatment and care is soaring. There are different solutions used for wound care such as povidone iodine, normal saline, chlorhexidine, and hydrogen peroxide. The main

Dependent variable:

Surgical wound healing.

Independent variable.

- Wound care with normal saline.
- Wound care with povidone iodine.

Hypothesis

H₁: The mean post test surgical wound healing scores after wound care with normal saline is significantly lower than the mean post test surgical wound healing scores after wound care with povidone iodine.

Research approach: Quantitative approach was adopted for the study.

Research Design: A quasi experimental design- non equivalent comparative group, post test only design was adopted for the study.

Setting of the study: This study was conducted in the general surgical units of Lisie hospital, Ernakulam.

Population: In this study the population consists of the clients who have undergone laparotomy.

Target Population: All clients who have undergone laparotomy.

Accessible Population: 30 clients who have undergone laparotomy at Lisie hospital, Ernakulam.

Sample and sampling technique: The sample includes 30 clients who have undergone laparotomy. Purposive sampling technique was used to select the sample.

Inclusion criteria

- Clients between the age group of 40 to 60 years.
- Clients who are willing to participate.
- Clients who will stay in the hospital for 6 days.

Exclusion criteria

- Clients with laparoscopic surgery.

- Clients with diabetes mellitus and postoperative sepsis.

Tools/ Instruments.

- Tool for assessing the demographic data.
- Wound healing assessment scale prepared by the investigator to assess the wound healing.

Interventions.

- Protocol to perform the wound care with normal saline.
- Protocol to perform the wound care with povidone iodine.

Description of the tool.

A structured knowledge questionnaire and attitude scale. It consists of three sections;

Section A: Demographic data: Consists of 7 items to collect the base line characteristics of students such as age, gender, religion, previous donation and knowledge related to donation.

Section B: Multiple choice questionnaires to assess the knowledge of students regarding blood donation. It consists of 20 items including general knowledge regarding blood donation such as eligibility criteria, benefits, and blood groups.

Section C: Attitude scale to assess the attitude of the subject regarding blood donation. It consists of 20 items including interest and attitude towards blood donation.

Scoring and Grading of the Knowledge

Total 20 items are included in the questionnaire. Each correct answer is given a score of 1 and each wrong answer carry 0 mark. The maximum score was 20 and grading of the knowledge score is, Poor: 0-5, Average: 6-10, Good: 11-15, Excellent: 16-20.

Scoring and Grading of the Attitude

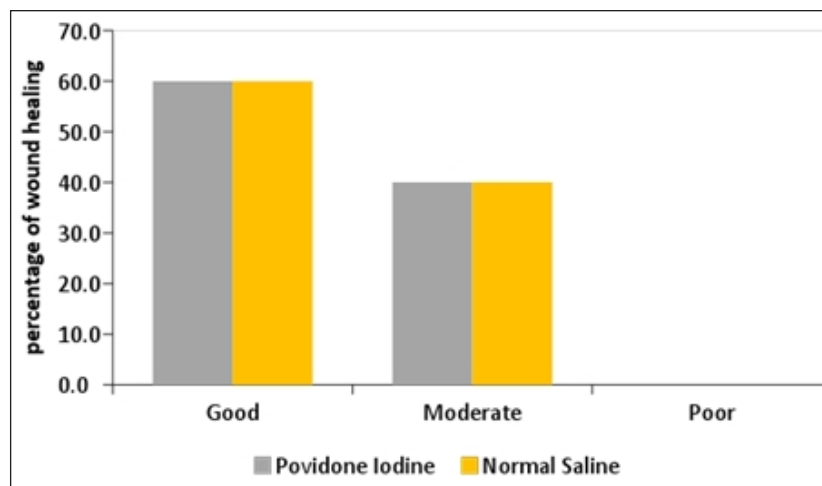
Total 20 items. Attitude scale contains positive and negative statement. Negative statement will be scored using reverse scoring. The maximum score is 60.

Results

Table 1: Description of the sample Frequency and percentage distribution of the subjects according to age, gender and co-morbid illness. (N = 30)

Selected Factors	Group 1		Group 1	
	Frequency	Percentage	Frequency	Percentage
Age				
40- 50 years.	10	66.7	7	46.7
51-60 years.	5	33.3	8	53.3
Gender				
Male.	8	53.3	11	73.3
Female.	7	46.7	4	26.7
Co-morbid illness				
Hypertension.	4	26.6	3	20.0
Dyslipidemia.	4	26.6	3	20.0
Others.	3	20.0	4	26.6
Nil.	4	26.6	5	33.3

Figure 1: Bar diagram showing grading of the surgical wound healing.



The figure 1 shows that 60% of the subjects are graded as having good wound healing, 40% with moderate wound healing in both group1 and group 2.

Testing of hypothesis.

H₀: There is no significant difference between the mean post test surgical wound healing scores after wound care with normal saline over the mean post test surgical wound healing scores after wound care with povidone iodine.

The mean post test surgical wound healing scores (4.20) after wound care with normal saline is lower than the mean post test surgical wound healing scores (4.47) after wound care with povidone iodine. The calculated 't' value t is 0.344 was not found to be significant as p value 0.733 at 0.05 level of significance. Hence, research hypothesis was

rejected and null hypothesis was accepted. It reveals that surgical wound healing after wound care with normal saline has no significant difference with the surgical wound healing after wound care with povidone iodine.

Conclusion


Majority of the subjects (60%) had good wound healing, 40% with moderate wound healing in group 1 and in group 2. Hence, it shows that surgical wound healing after the wound care with normal saline is equal to surgical wound healing after wound care with povidone iodine. The result of the study showed that the mean post test scores (4.20) of surgical wound healing after wound care with normal saline is lower than the mean post test scores (4.47) of surgical wound healing after wound care with povidone iodine. The calculated value $t = 0.344$ found not to be significant as p value is 0.733 at 0.05 level of significance. Hence, research hypothesis was rejected and null hypothesis was accepted. It reveals that surgical wound healing after wound care with normal saline has no significant difference with surgical wound healing after wound care with povidone iodine.

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STRESS DISORDERS TIED TO INCREASED RISK OF AUTOIMMUNE DISEASES.

A new research reported online June 19, 2018 in JAMA has suggested that people who suffer from posttraumatic stress disorder (PTSD) and other stress-related psychiatric issues may be at a higher risk for development of autoimmune diseases.

(eMediNexus, 24 June 2018.)