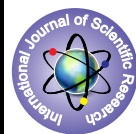


The Effectiveness of Honey Dressing Vs Betadine Dressing on Wound Healing Process



Nursing

KEYWORDS : Effectiveness, Honey Dressing, Betadine Dressing, Wound, Healing .

Prof. DR. J. Jasmine

Professor, Nursing CON, MTPG&RIHS, Government of Puducherry

Mrs. Malathy.

Msc Nursing CON, MTPG&RIHS, Government of Puducherry

ABSTRACT

To assess the effectiveness of Honey dressing Vs Betadine dressing on wound healing process among selected patients in IGGGH&PGL, Puducherry. To assess the existing status of the wound, to evaluate the effect of honey dressing and on wound healing process among selected patients, to determine the effect of betadine dressing on wound healing process among selected patients, to compare the effectiveness of honey Vs betadine dressing on wound healing process among selected patients, to find out the association between level of wound healing process after honey and betadine dressing with selected demographic variables. The research study selected for the study was quantitative approach by Simple random sampling technique was used to select the samples. The sample size was 60, in that 30 sample for group I (Honey dressing) and 30 sample for group II (Betadine ointment dressing). The major findings of the study in group I (honey dressing), the pre application mean score was 42.06 with S.D 6.19 and the post test mean score was 19.07 with S.D 3.85 and the 't' value was 23.985 and in group II (betadine dressing), the pretest mean score was 38.20 with S.D 5.21 and the post-test mean score was 32.60 with S.D 6.51 and 't' value was 6.125. The pretest and post-test mean difference score was 23.00 with S.D 5.25 in honey group and pretest and post-test mean difference score was 5.60 with S.D 5.01 in betadine group and 't' value was 13.133. The study also emphasizes on creating public awareness regarding alternative treatment like honey dressing for wounds in order to prevent the antibiotic resistance.

INTRODUCTION

Wound healing is a complex and dynamic process of restoring cellular structures and tissue layers. The human adult wound healing process can be divided into 3 distinct phases: the inflammatory phase, the proliferative phase, and the remodeling phase. Within these 3 broad phases is a complex and coordinated series of events that includes chemotaxis, phagocytosis, neocollagenesis, collagen degradation, and collagen remodeling. In addition, angiogenesis, epithelization, and the production of new glycosaminoglycans (GAGs) and proteoglycans are vital to the wound healing milieu. The culmination of these biological processes results in the replacement of normal skin structures with fibroblastic mediated scar tissue.

Estimated Worldwide Wound Prevalence by Etiology, 2011

Wound Type	Worldwide Prevalence (million)	Healing Time (Days)	CAGR 2007-2016
Surgical wounds	110.3	14	3.6%
Traumatic wounds	1.6	28	1.7%
Lacerations	20.4	14	1.2%
Burn wounds (outpatient)	3.4	21	1.0%
Burn wounds (medically treated)	6.5	21	1.3%
Burn wounds (hospitalized)	0.2	50	1.1%
Pressure ulcers	8.5	–	6.9%
Venous ulcers	12.5	–	6.7%
Diabetic ulcers	13.5	–	9.3%
Amputations	0.2	–	1.2%
Carcinomas	0.6	14	3.0%
Melanoma	0.1	14	3.2%
Complicated skin cancer	0.1	28	3.1%

CAGR: Compound Annual Growth Rate

Source: Medical Market Diligence, LLC (Limited Liability Company)

Effective treatment of wound care saves lives, where as ignoring them may prove fatal. Hence care & treatment of wound is very important. The incidence of wound is reported that in India are 0.78% of the population & the prevalence ranges from 0.18 to

0.32% (Crovetti et al 2010)

RECENT STATISTICS IN IGGGH & PGL, PUDUCHERRY

YEARS	2007	2008	2009	2010	2011' Mar
Patients with wounds attending dressing OPD in IGGGH & PGL	5244	6923	4974	32983	12021

Source: MRD, IGGGH & PGL, Puducherry.

Allen et al (2000) proved that honey is a traditional topical treatment for infected wounds. It may be effective even on antibiotic resistant strains of bacteria. This observation has inspired the investigator in exploring this study and the investigator felt that the study on wound healing can save lives and may be boom to those with wound.

NEED FOR THE STUDY

Honey bears the scale for medical products; its quality is regularly tested. The success astonishing, dead tissue is rejected faster, & the wounds heals more rapidly, wound specialist at the university clinic emphasizes, dressing is less painful since the exudates are easier to remove without the newly formed layer of skin, yet honey helps, here too by reducing the smell.

In an attempt to alternate topical agents & to individualize their use to specific wounds. Betadine ointment is an Antiseptics, Disinfectants, and Cleansing agents, used for wound dressing. Povidone-iodine is a multivalent broad spectrum local antiseptic having bactericidal and fungicidal properties. The effect on vegetative cells of various bacteria and fungi is due to the liberation of free iodine from the complex. It acts against many viruses, protozoa, yeasts, cysts and spores.

Based on the review of literature and the investigator's experience, it is found that there is need for the alternative treatment like honey dressing for earlier wound healing and to prevent topical antibiotic resistance. Moreover she observed that honey dressing is much beneficial for the patients with diabetic and chronic wounds. Hence if the study is conducted, it will be exploring a cost effective and easily available dressing agent that will hasten healing of wound and ulcers.

OBJECTIVES OF THE STUDY:

1. To assess the existing status of the wound

- To evaluate the effect of honey dressing on wound healing process among selected patients.
- To determine the effect of betadine dressing on wound healing process among selected patients.
- To compare the effectiveness of honey Vs betadine dressing on wound healing process among selected patients.
- To find out the association between level of wound healing process after honey and betadine dressing with selected demographic variables.

MATERIALS AND METHODS

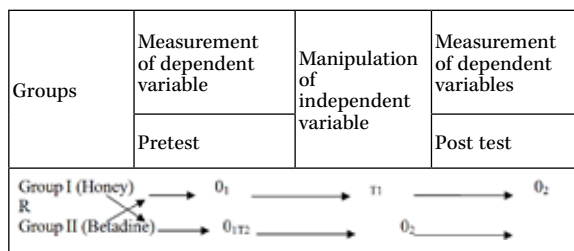
RESEARCH APPROACH:

Research approach indicates the procedure for conducting the study. The selection of approach depends on the purpose of the study. In order to accomplish the objectives of the study a Quantitative approach was found to be appropriate and selected to conduct this study.

RESEARCH DESIGN:

A quasi experimental design was selected. In this design, two comparison treatments were used to measure the effectiveness of honey dressing Vs betadine dressing on wound healing process among selected wound patients. In the honey group, after pre-assessment of the wound, the honey dressing was done for seven days. In betadine group, after pre-assessment of the wound, the betadine ointment dressing was done for seven days. At the end of seventh day, post assessment done for both honey group and betadine group for the effectiveness on wound healing process. Out of the various quasi experimental designs, pre-test and post test design with two comparison treatments was selected.

PRE TEST AND POST TEST DESIGN WITH TWO COMPARISON TREATMENTS



Source: Nancy Burns

VARIABLES:

The Independent variables are Honey dressing and Betadine dressing. The Dependent variables is degree of speed of improvement after the application of honey Vs betadine dressing on wounds healing process.

THE SETTING:

The selection of setting was done on the basis of feasibility of conducting the study, availability of sample, geographical proximity, convenience to the investigator and co-operation from the authority. The study was conducted in Indira Gandhi Government General Hospital and post-graduate institute, Puducherry; it is the referral unit for the union territory of Puducherry. It has 700 bedded and approximately 30- 40 patients per day, 800- 1000 patients per month and 6000-8000 patients coming for dressing each year. Dressing OPD is operating from 8 am to 12 noon on every day, in surgical outpatient department at Agathiar block ground floor in Indira Gandhi Government General Hospital and Post Graduate Institute, Puducherry.

POPULATION OF THE STUDY

In the present study the population consists of all patients with wound attending regularly to Indira Gandhi Government Gen-

al Hospital and Post Graduate Institute, Puducherry at the time of data collection.

SAMPLE AND SAMPLE SIZE

The samples comprised of 60 patients with wounds with the age group of 20-60 years, in that 30 patients were selected in Group I (honey dressing) and 30 patients were in the Group II (betadine ointment dressing). The patients who are attending dressing OPD during the period of the study, at IGGGH & PGI, puducherry were selected for the study.

SAMPLING TECHNIQUE

In this study simple random sampling technique was used to select subjects by using sampling criteria.

METHOD OF SAMPLE SELECTION

The researcher used numerical method i.e., all the patients with the even number those who attends the dressing OPD during the period of study, in that first 30 patients with even number selected for the honey groups and next 30 patients with even number selected for the betadine group.

DEVELOPMENT AND DESCRIPTION OF THE TOOL

The tool was developed after extensive review of literature, internet search and experts advice which helped the investigator to select the most suitable Structured questionnaire on Bates and Jensen Wound Assessment Tool for assessing the effectiveness of Honey dressing Vs Betadine dressing on wound healing process of patients with wound.

DESCRIPTION OF THE TOOL

The investigator used a structured questionnaire on Bates and Jensen Wound Assessment Tool for this research study which consists of the following section.

DATA COLLECTION PROCEDURE

A formal written permission was obtained from the Medical superintendent and concerned authorities of IGGGH&PI, puducherry for conducting data collection in the dressing OPD. Using simple random sampling technique, 60 patients with wounds were classified into Group I and II. 30 clients were included in Group I (Honey dressing) and 30 clients were included in Group II (Betadine dressing). The investigator introduced her self to the patients, briefed about procedure and explained the purpose of the study. The data was collected for a period of four weeks at the rate of 7-8 samples per day. The data collection was carried out between 8.00 a.m. and 12.00 noon in the Dressing OPD at Indira Gandhi Government General Hospital and Post Graduate Institute, Puducherry on every day. After taking consent from the patients, pre-assessment of the wound was done with structured questionnaire on Bates and Jensen Wound Assessment Tool, wound dressing was done with honey dressing for Group I (30 patients) and betadine dressing for Group II (30 patients) after cleaning with normal saline by the investigator for 15- 20 minutes daily for one week period, following the steps illustrated in the instructional guide enclosed in annexure IX. On the seventh day, post assessment (wound healing process) was assessed using the same tool for Group I and II, there was marked improvement in the wound healing process in Group I (honey dressing) than Group II (betadine ointment dressing).

FINDINGS AND DISCUSSION

The major findings of the Demographic variables are as follows,

- Majority of the samples were in the age group of 36- 50 years i.e., 50% in Group I & II.
- Regarding gender, majority of the samples were males 100% in Group II & 96.6% in Group I.
- According to the educational status, most of samples have completed their secondary education 50% in Group I & 36.6% in

Group II.

- ♣ According to the occupation, most of the samples 66.67% in Group II & 50% in Group I were semi skilled worker.
- ♣ Regarding family income, most of them 83.33% in Group II & 50% in Group I were getting <Rs.5000
- ♣ Majority of the sample were found with No pre-existing disease 80% in Group II & 50% in Group I.
- ♣ Regarding the Type of wound, it is evident that 63.33% in Group I & 56.67% in Group II were having Acute & infected wound.

CONCLUSIONS

- The wound healing process of the patients with Wounds was improved significantly after Honey dressing than betadine ointment dressing.
- The post test wound healing process score of the Wound patients was significantly less than the pretest after Honey dressing than betadine ointment dressing (<30- good healing, >30 – non healing).
- The Honey dressing was found to be effective than betadine ointment dressing in improving the wound healing process.
- There was no association between the wound healing process and the demographical variables.