

“A STUDY TO ASSESS THE EFFECTIVENESS OF SODIUM BICARBONATE MOUTH WASH FOR PREVENTING RADIOTHERAPY INDUCED ORAL MUCOSITIS IN HEAD AND NECK CANCER PATIENTS IN SELECTED KLE CANCER HOSPITAL, AT BELGAVI”.

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KEYWORDS

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Sodium Bicarbonate (SB,
NaHCO₃),
Oral Mucositis (OM),
Head and Neck Cancer
(HNC)

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ABSTRACT

A study is done to evaluate the Impact of Sodium bicarbonate of sodium bicarbonate mouth wash for preventing radiotherapy induced oral mucositis in head and neck cancer patients. Pre-test and post-test design for one group research design is used for the study. Total 82 head and neck cancer patients had selected with Purposive sampling technique. Socio demographic variables and Mucositis Assessment Scale is used for the data collection. Modified General System Theory is used for the study.

The effect of study shows such the mean score of pretest was grade-3 was (24.4%) and grade-4 was (75.6%). Post-test grade-3 was (64.6%), and (45.1%) on day grade-4, the assessment level at grade-4 on day grad-3 was (35.4%). Study proved that sodium bicarbonate mouth wash help to cure the OM of HNC patients.

INTRODUCTION

Cancer is a broad word for a statistic of probably fatal conditions marked by aberrant cell development and metastasis. Owing to its complexity and diversity, there is no cure for cancer, nor is there a single etiologic factor that causes it. Normal cells can develop into malignant cells that proliferate and spread, which is how cancer is caused. One in two males and those classified as male at birth (AMAB) and one in three women and those classified as female at birth (AFAB) will acquire cancer, according to the American Cancer Society.

An aberrant cell progress that has the probably to invade or expansion to other sections of the body is what is referred to as carcinoma. Those that do not spread are called benign tumors. There could be a lump, irregular bleeding, persistent cough, unexplained weight loss, and altered bowel movements among the warning clinical manifestation. There are other possible explanations for similar symptoms in addition to cancer. Additional reasons may also be involved. Humans are affected by many types of cancer¹.

An incidence of cancer is on the rise in India. GLOBOCAN 2020 predicts that by 2040, there would be two point one million country estimation, a 57.5% rise from 2020. For both genders, the overall tumor frequency rate was 103.7 and 102.4 for one lackpeople, respectively. The government notified Parliament on March 14 that the ICMR-NCRP that the number of cancer cases in the nation will estimatedone million four hundred sixty thousand in two thousand twenty-two to one million five hundred seventy thousand in two thousand twenty-five. There will be 66,920

recent cases of head and neck cancer investigate in 2023 (17,730 women and 49,190 men). Higher number of the cancer patient in Indian state Kerala (135.3)².

Swelling and ulceration of the mouth mucous membranes are symptoms of oral mucositis, a common reaction of ca therapy like chemotherapy and radiation therapy. Through its ability are to neutralize acidity & calm the afflicted area, sodium bicarbonate mouthwash may provide comfort. It is important to speak with a healthcare provider before using it, as they may offer specific recommendations and assistance based on each patient's condition and treatment plan. Nevertheless, the efficacy of this remedy can differ from person to person.

OBJECTIVE OF THE STUDY

1. To assess the level of radiation induced Oral Mucositis among head and neck cancer patients.
2. To assess the effectiveness of sodium bicarbonate mouth wash on radiotherapy induced oral mucositis among head and neck cancer patients.
3. To find out the association between pre-test scores of oral mucositis with selected demographic variables.

HYPOTHESIS

H1: There will be significant different in the oral mucositis between the pre-test and post-test level scores in the experimental group at 0.05 level.

H2: There will be significant association between the mouth wash with selected socio-demographic variables at 0.05 levels.

MATERIALANDMETHOD:

An Evaluative research approach and Experiment pre-test post-test design is used. Data was gathered through the use of the purposive sampling technique from 82 samples. Mucositis was assessed by using oral mucositis assessment scale. Sociodemographic and Mucositis assessment scale (Five point Mucositis scale) is used to collect the data.

The steps of the data collection are as follows

- ◆ The researchers taken formal permission from the concerned authority.
- ◆ Selection of samples (patients diagnosed as head neck cancer patients with associated OM)
- ◆ Informed consent for participation was taken.
- ◆ Pre-test was taken place assess the oral mucositis scale and implementing the NaHCO₃ oral hygiene
- ◆ SB mouthwash was given for 5 days
- ◆ The post test was carried out after on 5th day with using the validated WHO Oral Mucositis Assessment Scale.
- ◆ The data was collected any interpreted and analysed.

The level of RTcausedOM among HNC patients through the scale of mucositis assessment scale.

Level of Assessment(grades)	PRE-TEST		POST-TEST DAYS					
	1 (pre - test)		3		4		5	
	n	%	n	%	n	%	N	%
I	0	0.0	0	0.0	0	0.0	48	58.5
II	0	0.0	0	0.0	45	54.9	34	41.5
III	20	24.4	53	64.6	37	45.1	0	0.0
IV	62	75.6	29	35.4	0	0.0	0	0.0

There was significance difference between the pre-test and post test scores of mucositis. Hence the H1 is accepted.

Study proved that there is no association found between the pretest mucositis scores and demographic variables.Hence H2 is rejected.

CONCLUSION

The aim of the study was to conclude either HNC patients OM ability be decreased by using NaHCO₃ oral hygiene based on the study's findings, head and neck cancer patients OM may benefit from NaHCO₃ medical care.

The below given conclusion was drawn from the research findings.

- Maximum number of the HNC patients had mild to serious level of OM.
- Sodium bicarbonate mouthwash is effective in decreasing the level of Omin head& neck carcinoma patients.

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RESULT

The majority of the clients were in age group of 51 years & above was 48 (58.5%), & highest gender group of male was 46(56.1%). Maximum abusers belong to Hindu 40(48.8%), majority studied primary school 21(25.6%), majority samples types of family nuclear family 52(25.6%), maximum per month income greater than rupees 20,000/- ,20(47.6%), highest dietary pattern was mixed diet 58(70.7%), majority source of information health professional was 68(82.9%)

The effect of study shows a certain mean score of examination on day -1 was grade-3 was 20(24.4%) and grade-4 was 62(75.6%). And on day-3 Post-test grade-3 was 53(64.6%), and 37(45.1%) on day4 grade-4, the assessment level at grade-4 on day grade-3 was (35.4%). P value was <0.001 and it significantly and hypothesis accepted. Therefore, it shows that sodium bicarbonate mouth wash help to reform the OM of HNC. The level of radiation assessment at pre-test in grade 3 was 20(24.4%) and in grade 4 ,62(75.6%)