# NATURAL HONEY APPLICATION ON ORAL MUCOSITIS AMONG PATIENTS UNDERGOING RADIATION THERAPY WITH OR WITHOUT CHEMOTHERAPY.

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#### **Abstract**

A study to evaluate the effectiveness of natural honey application on oral mucositis among patients undergoing radiation therapy with or without chemotherapy in selected hospital, Kanyakumari district. Out of 60 samples, 30 samples were in study group and 30 samples were in the control group. The WHO Oral Mucositis Grading Scale was used to screen the oral mucositis in the study and control group. Pre assessment was done on first day and post assessment was done on seventh day. The researcher concluded as per the study that, oral mucositis can be reduced by natural honey application. This study findings statistically proved the natural honey application is effective on oral mucositis among patient undergoing radiation therapy with or without chemotherapy.

**Key words:** natural honey application, oral mucositis, patients undergoing radiation therapy with or without chemotherapy.

# Introduction

Health is a source of joy for everyday life. The mode of being healthy includes as defined by the World Health Organisation (WHO), a state of complete physical, mental, social wellbeing and not merely an absence of disease or infirmity. A disease is a particular abnormal condition, a disorder of a structure or function, that affects part or all of an organism. Disease is often construed as a medical condition associated with specific symptoms and signs. It may be caused by factors originally from an external source, such as infectious disease, or it may be caused by internal dysfunctions, such as autoimmune diseases. Many treatment options for cancer as with the primary including surgery, chemotherapy, radiation therapy, hormonal therapy, targeted therapy and palliative care. The treatments depend upon the

type, location, and grade of the cancer as well as the person's health and wishes. The treatment intent may be curative or not curative.

# Statement of the problem

A study to evaluate the effectiveness of natural honey application on oral mucositis among patients undergoing radiation therapy with or without chemotherapy in selected hospital, Kanyakumari district.

# **Objectives**

- To assess and compare the effectiveness of natural honey application on oral mucositis among patients undergoing radiation therapy with or without chemotherapy in study group and control group.
- To evaluate the effectiveness of natural honey application on oral mucositis among patients undergoing radiation therapy with or without chemotherapy in study group and control group.
- To associate the post interventional level of oral mucositis among patients in study and control group with selected demographic variables in study and control group.

# **Hypotheses**

- **H**<sub>1</sub>. There is a significant difference between the pre and post assessment level of oral mucositis among patients undergoing radiation therapy in study and control group.
- **H**<sub>2:</sub> There is a significant difference between the post assessment level of oral mucositis among patients undergoing radiation therapy in study and control group.

H<sub>3</sub>. There is a significant association between the post assessment level of oral mucositis with the selected demographic variable.

# Methodology

**Research approach:** The researcher utilized quantitative research approach.

**Research design:** Pretest and post test control group design was adopted in this study.

**Setting:** The study was conducted in C.S.I medical mission hospital, International Cancer Centre, Neyyoor Kanyakumari District.

**Population:** The population under study constituted all the patients undergoing radiation therapy with or without chemo therapy with oral mucositis

**Sample Size:** Sample size was 60, out of which 30 samples were in the study group and 30 samples were in the control group.

**Sampling technique:** Purposive sampling technique was adopted to select the patients with oral mucositis in study group and control group.

**Description of tool**: The tool used in this study has 2 parts.

Part-1: Demographic data.

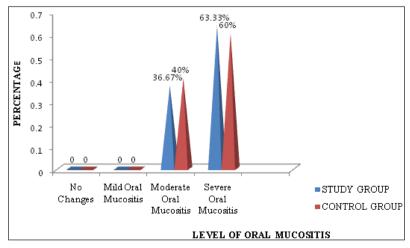
Part-2: WHO Oral Mucositis Grading Scale.

#### **Results**

In the present study 60 samples were enrolled. The distribution of patients with oral mucositis, according to age in study group 4 (13.33%) were in the age group between 31-40 years, 8 (26.67%)were in the age group between 41-50 years, 12 (40%)

were in the age group between 51-60 years, 6(20%) were in the age group of above 61 years. In control group 6(20 %) were in the group between 31-40 years, 6 (20%) were in the age group between 41-50 years, 10 (33.3%) were in the age group between 51-60 years, 8(26.67%) age group of above 61 years. In regard to the gender, in the study group 18 (60%) were males, 12 (40%) were females. In control group 16 (53.33%) were males, 14(46.67%) were females. In regard to the place of residence, in the study group 18 (60%) belonged to the rural area, 12 (40%) belonged to the urban area. In control group 16(53.33 %) belonged to the rural area, 14(46.67%) belonged to the urban area. With regard to religion, in study group 18 (60%) were Hindu religion, 10 (33.33%) were Christian, 2(6.67%) were Muslim. In control group 16(53.33%) were Hindu religion, 12(40%) belongs to Christian, 2(6.67%) belongs to Muslim. Among the marital status 30(100%) were married in study group and control group. With regard to educational status, in study group 12(40%) belonged to primary education, 12(40%) belonged to higher secondary and 6(20%) belonged to graduate and others. In control group 14(46.67%) belonged to primary education, 10(33.33%) belonged to higher secondary and 6(20%) belonged to graduate and others. With regard to occupation, in study group 4 (13.33%) were government workers, 6(20%) were private workers, 10(33.33%) were self-workers and 10(33.34%) were unemployed. In control group 3 (10%) were government workers, 9(30%) were private workers, and 11(36.67%) were self-workers, 7(23.33%) were unemployed.

Fig1: Pre assessment percentage distribution of patients with oral mucositis in study and control group.



With regard to Fig.1, represent, during pre-assessment. In the study group 11(36.67%) had moderate oral mucositis and 19(63.33%) had severe oral mucositis. In control group, 12(40%) had moderate oral mucositis, 18(60%) had severe oral mucositis.

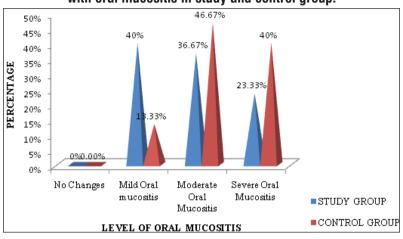


Fig 2: Post assessment frequency and percentage distribution of patients with oral mucositis in study and control group.

With regard to Fig.2, represent that, during post assessment, in study group 26(87%) had moderate oral mucositis and 4(13.33%) had severe oral mucositis. In control group none of them had mild level of oral mucositis, 27(90%) had moderate oral mucositis, 3(10%) had severe oral mucositis, and no patients with oral mucositis came in the category of life threatening oral mucositis.

Table 1: Comparison of pre assessment and post assessment of patients with oral mucositis patients in study group and control group.

(N = 60)

Group	Mean	SD	Paired 't' Value	df	Table Value
Study group (n=30)					
Pre assessment	2.69	1.83	9.05	29	2.042
Post assessment	0.49	0.79			
Control group (n=30)					
Pre assessment	2.60	2.26	3.80	29	2.043
Post assessment	0.49	0.69			

Table 1 represents, the mean score on level of oral mucositis among patients undergoing radiation therapy with or without chemotherapy in study group the mean post assessment value was 0.49 and the standard deviation was 0.79 and in the control group the mean post assessment was 0.49 and the standard deviation was 0.69. The mean difference was high and statistically significant. That is natural honey application was effective to reducing the oral mucositis among patients undergoing radiation therapy with or without chemotherapy.

# **Discussion**

This study was done to evaluate the effectiveness of natural honey application among patients undergoing radiation therapy with or without chemotherapy at selected Hospital at Kanyakumari District.

The first objective is to assess the effectiveness of oral mucositis among patients undergoing

radiation therapy with or without chemotherapy. During pre-assessment, 11(36.67%) had moderate oral mucositis and 19(63.33%) had severe oral mucositis. In control group, 12(40%) had moderate level of oral mucositis, 18(60%) had severe level of oral mucositis. During post assessment, in study group, 26(87%) had moderate oral mucositis and 4(13.33%) had severe oral mucositis. In control

group none of them had no and mild level of oral mucositis, 27(90%) had moderate oral mucositis, 3(10%) had severe oral mucositis. Hence  $H_1$  is accepted.

The second objective of the study is to evaluate the effectiveness of oral mucositis among patients undergoing radiation therapy with or without chemotherapy. In study group the calculated 't' value for the pre assessment and post assessment level of oral mucositis was 2.04 which was higher than the corresponding table value at 0.05 significant level. So there was a significant difference between the pre assessment and post assessment score in study group.

The third objective is to determine the association between the post assessment level of oral mucositis among patients undergoing radiation therapy with or without chemotherapy. There is a association (p<0.05) between the post assessment level of oral mucositis among patients undergoing radiation therapy with or without chemotherapy in the study group and control group with their selected demographic and clinical variables such as age, duration of illness and number of exposure to radiation therapy at p<.05 level. Hence H<sub>3</sub> hypothesis is accepted.

# Conclusion

From the result of the study, it was concluded that most of the patients undergoing radiation

therapy with or without chemotherapy had oral mucositis. The remedies were needed for oral mucositis. Natural honey application to the patients undergoing radiation therapy with or without chemotherapy was effective in reducing oral mucositis. Therefore, the investigator felt that more importance should be given for natural honey application to reduce level of oral mucositis in patients undergoing radiation therapy with or without chemotherapy.

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# MOST WOMEN WITH EARLY BREAST CANCER DO NOT BENEFIT FROM CHEMOTHERAPY.

New findings from the TAILORx (Trial Assigning Individualized Options for Treatment) presented June 3, 2018 at ASCO 2018 in Chicago show that for women with hormone receptor (HR)-positive, HER2-negative, axillary lymph node-negative breast cancer, treatment with chemotherapy and hormone therapy after surgery is not more beneficial than treatment with hormone therapy alone.

