



EFFECTIVENESS OF COCONUT OIL PULLING ON ORAL MUCOSITIS AMONG CANCER PATIENTS IN A SELECTED HOSPITAL AT MADURAI.

**Mr. Chinna
Chadayan N**

Ph.DSchloar, Himalayan University, Itangar ,Arunachal Pradesh Professor cum
Principal, GIMSAR School & College of Nursing, Cuttack.

ABSTRACT Oral cancer is one of the fatal health problems faced by the mankind today in India due to cultural , ethnic factors and the addictive habits, oral cancer ranks in top three of all cancer deaths in India (Mehrotra, R., Pandya, S., Chaudhary, A. K., Kumar, M., & Singh, M. 2008). The common oral complications from cancer treatment include the oral mucositis. Coconut oil is edible and has anti-viral, anti-bacterial and anti-fungal and soothing effect and it has been proven an effective remedy against oral health issues. The objective was to evaluate the effectiveness of coconut oil pulling on oral mucositis among cancer patients.

The research design adopted was quasi-experimental post test design with control group with Non-probability convenient sampling technique was adopted to select the desired sample. The sample size was 60. The researcher used structured self interview questionnaire with standardized WHO Oral Mucositis Rating Scale to assess the severity of oral mucositis . Coconut oil pulling technique was administered to the experimental group.

The data were analyzed by using both descriptive and inferential statistical methods. Paired 't' test was used to evaluate the effectiveness of coconut oil pulling on oral mucositis among cancer patients. The findings revealed that the coconut oil pulling reduced the severity of oral mucositis among cancer patients.

KEYWORDS : Effectiveness, Coconut Oil Pulling, Oral mucositis, Cancer patients.

INTRODUCTION

"Oral cavity is the mirror of the body".
- Sir William Osler.

India has the highest number of cases of oral cancer in the world and this is increasing. Mucositis is the painful inflammation and ulceration of the mucous membranes lining the digestive tract, usually as an adverse effect of chemotherapy and radiotherapy treatment for cancer. Alimentary tract mucositis increases mortality and morbidity and contributes to rising health care costs.

Approximately 400,000 patients per year may develop acute or chronic oral complications during chemotherapy. Some degree of oral mucositis occurs in approximately 40% of patients who receive cancer chemotherapy. At least 75% of patients who receive conditioning regimens (chemotherapy with or without total body irradiation) develop oral mucositis.

Background of the Study

A good way of treating oral mucositis is with coconut oil .The way coconut oil works is that it has anti-viral, anti-bacterial and anti-fungal properties and which can help to combat viruses, bacteria and fungus that can be found in a persons mouth and will cause ulcers. The MCFA's (medium chain fatty acids) find in coconut oil which is rapidly absorbed in to the body and thus the healing process is accelerated.

MCFA's which are in coconut oil also help to enhance the body's own immune system and thus help it to fight viruses, fungus and bacterial problems. Also coconut oil is great for helping a person's intestinal system by killing any fungi found in the intestinal tract.

Above are a number of reasons as to why coconut oil can not only help to treat and heal mouth ulcers but also it helps prevent them from forming. Also coconut oil is not messy to apply to the ulcer; it is one of the traditional treatments and is completely edible and natural.

Need for the study

Annually, nearly 12 million cases are diagnosed with cancer, in India there are about 1150 cases per 100,000 are diagnosed with cancer, in Tamil Nadu there are about 112.3 cases per 100,000 are diagnosed, among than 85 % cancer patients receive chemotherapy, radiation therapy (RT).

Oral mucositis causes, restricts oral intake, may act as a portal of entry for organisms, frequently contributes to interruption of therapy, may increase the use of antibiotics and narcotics, may increase the length of hospitalization, and may increase the overall cost of treatment. Patients with oral mucositis have a relative risk of septicemia. And hence this motivated the researcher to take up this project.

Objective of the study

To evaluate the effectiveness of coconut oil pulling on oral mucositis among cancer patients.

Hypothesis

The coconut oil pulling is effective in reducing the severity of oral mucositis among cancer patients.

METHODS AND MATERIALS

The quasi - experimental pretest and post test design with control group was used to evaluate the effectiveness of coconut oil pulling on oral mucositis among cancer patients. The samples were selected by adopting non probability convenient sampling technique and decided to select 60 samples, among which 30 for experimental and 30 for control group, the cancer patients who had oral mucositis, admitted in Devaki cancer hospital and research institute at Madurai. Coconut oil pulling Technique Intervention& tool

About 5 ml of coconut oil was given for oil pulling early in the morning for 7 continuous days; the coconut oil pulling was done for complete 5 minutes, after 7 days of duration, severity of mucositis was assessed with Standardized WHO oral mucositis rating scale oral mucositis rating scale among both the groups.

Data Analysis

The demographic variables were analyzed by using descriptive measures. The effectiveness of coconut oil pulling on the severity of oral mucositis was analyzed by using paired 't' test. Association between the severity of oral mucositis among the cancer patients with the selected demographic variables were analyzed by using chi square test.

Major Findings

Section: I Data On Assessment Of Severity Of Oral Mucositis Among Cancer Patients.

Table: 2 Frequency and percentage distribution pre and post test of coconut oil pulling on oral mucositis patients among cancer on experimental and control group.

N = 60

S.No.	GRADE	Experimental Group				Control Group			
		Pre-test		Post-test		Pre-test		Post-test	
		n	%	n	%	n	%	n	%
1	Grade 0	-	-	7	23%	-	-	-	-
2	Grade 1	3	10%	15	50%	5	17%	-	-
3	Grade 2	13	43%	8	27%	20	66%	3	10%
4	Grade 3	14	47%	-	-	5	17%	21	70%
5	Grade 4	-	-	-	-	-	-	6	20%

Table 1. Reveals that, pre test and post test score among experimental group, none were under the grade 0 of pre test and 7(23%) were under grade 0 of post test, 3(10%) were under grade 1 of pre test and 5(50%) were under grade 1 of post test, 13(43%) were under grade 2 of pre test and 8(27%) were under grade 2 of post test, 14(47%) were under grade 3 of pre test and none were under grade 3 of post test, none were under grade 4 of pre test and none were under grade 4 of post test.

It also reveals that, pre test and post test score among control group, none were under the grade 0 of pre and post test, 5(17%) were under grade 1 of pre test and none were under post test, 20(66%) were under grade 2 of pre test and 3(10%) were under grade 2 of post test, 5(17%) were under grade 3 of pre test and 21(70%) were under grade 3 of post test, none were under grade 4 of pre test and 6(20%) were under grade 4 of post test.

Section: II Data On Effectiveness Coconut Oil Pulling On Oral Mucositis Among Cancer Patients.

Table: 2.1 Mean, Standard Deviation, Mean Difference and 't' Value of Post-test on coconut oil pulling on oral mucositis among cancer patients in Experimental and Control Group.

N = 60

Group	Mean	S.D	t-value
Experimental Pre test	2.37	0.69	
Experimental post test	1.03	0.72	10.27

[df= 29, table value = 2.045, p<0.05 (significant)]

Table 2.1 Reveals that, among control group, the post-test mean was 3.10, standard deviation was 0.55 and experimental group post-test mean 1.03, standard deviation 0.72 and mean difference was 29, the 't' value was 13.04 that is significant at 0.05 level.

Hence, the hypothesis stated was accepted.

Mean, Standard Deviation, Mean Difference and 't' Value of Pre-test and Post-test on coconut oil pulling on oral mucositis among cancer patients in Experimental Group.

Table: 2.2

N = 60

[df= 29, table value = 2.045, p<0.05 (significant)]

Table 2.2 Reveals that, among experimental group, the pre-test mean was 2.37, standard deviation was 0.69 and experimental group post-test mean 1.03, standard deviation 0.72 and mean difference was 29, the 't' value was 10.27 that is significant at 0.05 level.

Hence, the hypothesis stated was accepted.

DISCUSSION

The present study revealed that coconut oil pulling helps to reduce the severity of mucositis & reduced the conception of analgesics. The obtained 't' value were significant, p<0.05 level. It implies that there was a greater effect of coconut oil pulling technique on oral mucositis. There was significant association between the severity of oral mucositis and monthly income in experimental group. There was no association between age, sex, education, habit of smoking, habit of betel leaf chewing, source of information and type of cancer treatment. (p<0.05). The study findings is congruent with In 2001, Singh osbarhir, Holovacs, Calvley and Spenser conducted a study on effectiveness of coconut oil pulling on oral mucositis.

CONCLUSION

To conclude it showed an imperative need to understand the purpose of coconut oil pulling technique regarding the reduction on severity of oral mucositis among cancer patients. Coconut oil pulling is very effective on severity of oral mucositis among cancer patients in treating and healing oral mucositis by which the standard and life of the cancer patients will be promoted.

REFERENCES

1. Baysac, M.A. S., Horowitz, A. M., & Ma, D. S. (2004). Oral cancer information in health education textbooks. *Journal of Cancer Education*, 19(1).
2. Ord, R. A., & Blanchaert Jr, R. H. (2000). *Oral cancer: The dentist's role in diagnosis, management, rehabilitation, and prevention*, Chicago.
3. Scully, C., Epstein, J., & Sonis, S. (2003). Oral mucositis: a challenging complication of

- radiotherapy, chemotherapy, and radiochemotherapy: part 1, pathogenesis and prophylaxis of mucositis. *Head & Neck: Journal for the Sciences and Specialties of the Head and Neck*, 25(12), 1057-1070.
4. Lalla, R. V., Sonis, S. T., & Peterson, D. E. (2008). Management of oral mucositis in patients who have cancer. *Dental Clinics of North America*, 52(1), 61-77.
5. Hasan, A., Qureshi, J. A., Amber, B. T., & Sunderjee, N. F. Effects of Oil Pulling On Chemo-radiotherapy Induced Oral Mucositis in Head and Neck Cancer Patients.
6. Thaweboon, S., Nakaparksin, J., & Thaweboon, B. (2011). Effect of oil-pulling on oral microorganisms in biofilm models. *Asia J Public Health*, 2(2), 62-66.
7. Sooryavanshi, S., & Mardikar, B. R. (1994). Prevention and treatment of diseases of mouth by gandoosha and kavala. *Ancient science of life*, 13(3-4), 266.
6. Burkhart, N. W. Oral Exam: Oral Oil Pulling.