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A Study on Occurrence of Gastro Intestinal Disturbances Related to Cancer Therapy Among Patients with Cancer in Selected Hospitals at Mangaluru

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ABSTRACT

Aim: To assess gastro intestinal disturbances related to cancer therapy among patients with cancer in selected hospital at Mangalore. **Materials and methods:** A descriptive design study was conducted from February 1st to February 28th. A purposive sampling technique was used to select 100 patients receiving cancer therapy, 50 in chemotherapy and 50 patients receiving radiation therapy. The subjects were asked to rate their gastro intestinal and associated symptom on MSAS as they experience after cancer therapy. The data analyzed through descriptive and inferential statistics. **Results:** The finding of the study shows that the incidence of cancer was more in the age group of patient between 41-50 yrs. In chemo therapy most commonly occurred GI symptoms were change in food taste, dry mouth and nausea. Commonly occurred associated symptoms in chemo therapy patients were hair loss, numbness and tingling sensation and difficulty in sleeping. In radiation therapy changes in food taste, lack of appetite and dry mouth were the most commonly reported GI disturbances. Lack of energy, hair loss, skin changes, difficulty in sleeping and weight loss were the common associated symptoms reported by the subjects in radiation therapy group. There is significant association between change in way of food taste with treatment modality (p=0.006), nausea with gender (p=0.019) and presence of co morbidities (p=0.020), feeling bloated with duration of illness (p= 0.024). **Conclusion:** Findings of the study have shown that there was occurrence of one or more gastro intestinal and associated symptoms in patients receiving cancer therapy.

KEYWORDS OCCURRENCE, CANCER THERAPY, GI DISTURBANCES

Introduction

The global burden of cancer continues to increase largely because of the aging and growth of the world population alongside an increasing adoption of cancer-causing behaviors.[1] Cancer therapies are made to kill rapidly multiplying cancer cells. But certain normal, healthy cells also multiply quickly, so cancer therapy can affect these cells, too. Normal cells most likely to be affected are: the bone marrow, gastrointestinal tract and hair follicles. Monitoring symptoms during cancer therapy is the corner stone of medical oncology practice. As patient's experiences adverse effects, their need for therapy modification, supportive care and education often change.

Objectives

1. To assess the occurrence of gastro intestinal and associated disturbances in cancer therapy.
2. To assess the severity and distress of gastro intestinal and associated disturbances in cancer therapy.
3. To determine the association of selected gastro intestinal disturbances with selected demographic variables.

Hypothesis

All hypotheses will be tested at 0.05 level of significance.

H_1: There will be significant association of changes in way of food taste with selected demographic variables.

H_2: There will be significant association of dry mouth with selected demographic variables.

H_3: There will be significant association of lack of appetite with selected demographic variables.

H_4: There will be significant association of nausea with selected demographic variables.

H_5: There will be significant association of feeling bloated with selected demographic variables.

H_6: There will be significant association of mouth sore with selected demographic variables.

Method

A descriptive study was conducted from February 1st to February 28 among 100 patients on cancer therapy (chemotherapy and radiation therapy). The inclusion criteria of the study were patients with cancer, receiving cancer therapy and who can read and write Kannada, Malayalam, or English. Exclusion criteria of the study were patients with cancer of oral cavity, esophagus, stomach, liver, pancreas and bowel and who are critically ill during the time of study. A purposive convenient sampling technique was used for the selection sample technique was used to select 100 patients, 50 each to chemo therapy and radiation therapy group. A descriptive and inferential statistics used on the basis of objectives and hypothesis formulated for the purpose of the study.

Data collection instrument:

Section 1: Baseline proforma consist of 12 items for obtaining Age, Gender, Educational status, Occupation, Family income, Dietary pattern, Past history of cancer treatment, Presence of co morbidities, Site of cancer, Duration of illness, Stage of cancer and Treatment modality.

Section 2: MSAS (Memorial Symptom Assessment Scale) were used to assess the occurrence, severity and distress level of GI symptoms and associated symptoms in patients undergoing cancer therapy.

Data collection process: Formal permission was obtained from the concerned authority prior to the data collection. The purpose of the study was explained to them and written consent was obtained. The subjects were selected by purposive convenient sampling technique. The gastro intestinal and associated symptoms were assessed using the Memorial Symptom Assessment Scale (MSAS).

Results

- Figure 1 revealed that the incidence of cancer was more in the age group of patient between 41-50 yrs.
- Table 1 shows that, in chemo therapy most commonly occurred GI symptoms were change in food taste, dry mouth and nausea. Commonly occurred associated symptoms in chemo therapy patients were hair loss, numbness and tingling sensation and difficulty in sleeping.
- Table 2 shows that, 1n radiation therapy changes in food taste, lack of appetite and dry mouth were the most commonly reported GI disturbances. Lack of energy, hair loss, skin changes, difficulty in sleeping and weight loss were the common associated symptoms reported by the subjects in radiation therapy group.
- Table 3 shows that there is significant association between nausea with gender (p=0.019) and presence of co morbidities (p=0.020), change in way of food taste with treatment modality (p=0.006), feeling bloated with duration of illness (p= 0.024).
- There is no significant association of selected gastro intestinal disturbances such as dry mouth, lack of appetite, mouth sore with selected demographic variables. Hence null hypothesis was accepted and research hypothesis rejected.

Discussion

In the present study 44% were in the age group of 41- 50 yrs. This finding is consistent with the findings of other study that was conducted to assess the pattern of ADRs due to cancer CT in tertiary care hospital in Bangladesh, where it was found that majority of occurrence in the age group between 41-50 years (26%).[2] In the present study mouth sores occurred for 14 (28%) of subjects out of 50 subjects in CT group, in that 10 (71.4%) of subjects have its severity score was moderate. This findings supported by the study conducted in oncology unit, Netherlands, for assessing the incidence and severity of CT associated oral mucositis. It found that out of 150 subjects, 47 subjects develop oral mucositis, in that 25 (17%) subjects experienced severity level as moderate.[3]

Conclusion

Findings of the study have shown that there was occurrence of one or more gastro intestinal and associated symptoms in patients receiving cancer therapy and these symptoms have varied level of severity and distress.

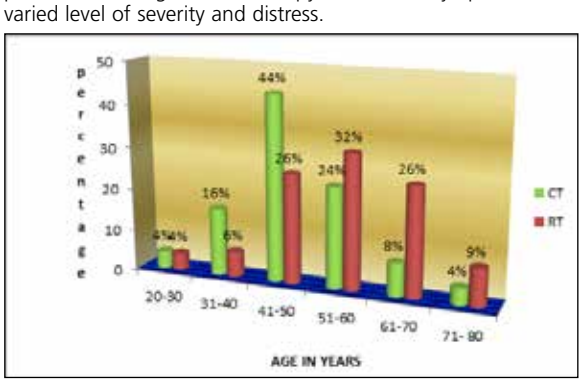

Figure 1: bar diagram showing the distribution of subject according to their age

Table 1: Frequency and percentage distribution of occurrence of GI symptoms and associated symptoms in chemotherapy group
n=50

	Symptoms	Frequency	Percentage (%)
GI disturbances	Change in way of food taste	42	84
	Dry mouth	24	48
	Nausea	19	38
Associated symptoms	Hair loss	34	68
	Numbness & tingling in hands/ feet	23	46
	Difficulty in sleeping	21	42

Table 2: Frequency and percentage distribution of occurrence of GI symptoms and associated symptoms in radiation therapy group
n=50

	Symptoms	Frequency	Percentage (%)
GI disturbances	Change in way of food taste	31	62
	Lack of appetite	21	42
	Dry mouth	17	34
Associated symptoms	Hair loss	18	36
	Weight loss	18	36
	Difficulty in sleeping	17	34
	Lack of energy	13	26
	Change in skin	12	24

Table 3: Association of the nausea with selected demographic variables
N=100

Variable	Nausea		P value	Inference
	Present	Absent		
Age in years				
20-30	2	2		
31-40	2	9	0.745	NS
41-50	13	19		
51-60	7	17		
61-70	8	16		
71-80	1	4		
Gender				
Male	6	28	0.019	S
female	27	39		
Presence of Comorbidities				
hypertension	1	7		
diabetes mellitus	10	9	0.020	S
heart disease	2	0		
nil	20	51		
Duration of illness				
< 1 year	28	55	1.00	NS
1-2 years	5	11		
> 2 years	0	1		
Treatment modality				
Chemo therapy	19	31		
Radiation therapy	14	36	0.288	NS

NS = Not Significant
S = significant

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