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Common Symptoms Experienced by Cancer Patients Undergoing Chemotherapy

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ABSTRACT

Introduction: Chemotherapy is one of the most commonly used treatments of choice for cancer and it leads to certain side effects. The oncology care team needs to identify the symptoms experienced by cancer patients who are under chemotherapy to resolve these side effects.

Objective: To identify the most common side effects experienced by cancer patients undergoing chemotherapy.

Methods: A cross-sectional survey is carried out in the Medical Oncology Outpatient department and Chemotherapy Units of Sri Ramachandra Hospital, Sri Ramachandra Institute of Higher Education, and Research (DU), Chennai, India, from February to March 2020. A convenient sampling technique was used to recruit a total of 150 cancer patients. Data collection was done through personal interviews and a review of their medical records. Approximately 15-20 minutes was required to obtain data from each participant.

Results: Most (31%) of them had breast cancer, 21% of them had gynaecological tract cancer, around 20% of them had digestive tract cancer. Fatigue was the most (48%) commonly reported symptom, followed by vomiting (36%) and pain (29.3%). Other symptoms like itching, oral mucositis, urinary problems, dyspnoea were experienced by the cancer patients under chemotherapy.

Conclusion: This study will help the oncology care team to understand the most common symptoms experienced by cancer patients who underwent chemotherapy. Identification and management of these symptoms will help the cancer patients to have adherence to the treatment.

Key Words: Common symptoms, Side effects, Chemotherapy, Quality of life, Cancer patients

INTRODUCTION

Every year more than 12 million new cancer cases are diagnosed across the globe. Different treatment modalities were also introduced and improved along with the increase in the prevalence of cancer. Chemotherapy is one of the most commonly used treatments of choice for cancer.¹ The nature of Chemotherapy is to damage the cancer cells along with healthy cells which result in the development of certain side effects.² The side effects of chemotherapy can be common among cancer patients and may result in life-threatening. Even cancer patients may experience these side effects when they are at home.³

The side effects result in certain manifestations like fatigue, loss of appetite nausea & vomiting, diarrhoea, constipation,

insomnia, etc., which has an impact on cancer patients' quality of life and may disturb the continuity of the treatment.⁴

The oncology care team needs to identify the symptoms experienced by the cancer patients who are under chemotherapy to resolve these side effects so that it can help cancer patients and the oncology care team to render continuity in treatment.⁵

Purpose/objective: To identify the most common side effects experienced by cancer patients undergoing chemotherapy.

METHODS

Study design and Setting

A cross-sectional survey is carried out in the Medical Oncology Outpatient department and Chemotherapy Units of Sri

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Ramachandra Hospital, Sri Ramachandra Institute of Higher Education and Research (DU), Chennai, India, from February to March 2020.

Sample

A convenient sampling technique was used to recruit a total of 150 cancer patients. The following criteria were used to include the participants in this study

- a) Cancer patients who are receiving Chemotherapy at any stage and any cycle.
- b) Who is willing to participate in study
- c) Both genders of 18 years of age or older than 18 years.
- d) Who can speak and understand English and /or Tamil.

Data Collection Tool

It consists of 8 items related to the cancer patient's personal and clinical information i.e. Age in years, gender, type of cancer, duration of treatment, stage of cancer, cycles of Chemotherapy completed, type of Chemotherapy, side effects/symptoms experienced.

Data collection procedure

The participants who met the eligibility criteria were invited to participate in the study. Informed consent was obtained from the participants. The participant's personal and clinical information was obtained by the researcher through personal interviews and a review of their medical records. Approximately 15-20 minutes was required to obtain data from each participant.

Ethical considerations

Ethical approval was obtained from the Institutional Ethics Committee of Sri Ramachandra Institute of Higher Education Research (DU). Informed consent was obtained from the participants. The anonymity of the participants was maintained. (IEC-NI/19/JUL/70/45)

Statistical analysis

Data analysis was performed by using R-Studio Version 3.6.2. Descriptive statistics like frequency and percentages were used to represent the participant's characteristics, clinical information, and common symptoms experienced by them.

RESULTS

Out of 150 participants, the majority (53.5%) were ≤ 55 years of age, most (66%) of them were females, around 60.7% of them have ≤ 4 months duration of treatment, the majority (59.3%) of them completed ≤ 5 cycles of chemotherapy, around 58% of them on curative chemotherapy, about 42.7% of them on IV stage of cancer, 21.3% of them on III stages of cancer (Table 1).

Regarding types of cancer, the majority (31.3%) of them were diagnosed with Breast cancer, around 14% of them had Ovarian cancer, 8.6% of them had rectal cancer, about 6.7% of them had Lung cancer and stomach cancer respectively, 4% of them had Cervical cancer and Multiple Myeloma respectively, 3.3% of them had Oesophageal cancer and endometrial cancer respectively, 2.7% of them had colon cancer, 2% of them had Prostate cancer (Table 2).

The majority (48%) of them experiencing fatigue as a common symptom, 36% of them experiencing vomiting, around 29% of them experiencing pain, about 26.7% of them experiencing loss of appetite, 23.3% of them experiencing nausea, 12.7% of them complains of disturbed sleep, 9.3% of them experiencing constipation, around 7.3% of them complaining diarrhoea, about 5.3% of them complained itching, 4.7% of them experienced fever, 4% of complained oral mucositis, only 3.3% of them experienced urinary problems and 1.3% of them complained about dyspnoea and stomach fullness. (Table 3).

DISCUSSION

This study shows that 53.5% of them were in the age group of ≤ 55 years, 66% of them were females and 59.3% of them completed more than 5 cycles of chemotherapy and 42.7% of them were in the IV stage of cancer which was similar to those reported in other studies performed by Pearce and Wochen.^{2,3}

Most (31%) of them had breast cancer, 21% of them had gynaecological tract cancer, around 20% of them had digestive tract cancer and 6.7% of them had lung cancer which was similar to those reported by Wochna and Nayak.^{3,5}

Fatigue was the most (48%) commonly reported symptom, followed by vomiting (36%) and pain (29.3%). Which was similar to those reported in other studies^{1,2,5}. Loss of appetite (26.7%), nausea (23.3%) and disturbed sleep (12.7%) constipation (9.3%), and diarrhoea (7.3%) were frequent symptoms experienced by the cancer patients under chemotherapy.^{6,7,8}

Other symptoms like itching, fever, oral mucositis, skin/nail discolouration, numbness, urinary problems, dyspnoea, and stomach fullness were reported by the chemotherapy cancer patients.^{9,10}

CONCLUSION

Chemotherapy is one of the most widely used treatment modalities for cancer and it leads to certain side effects. This study will help the oncology care team to understand the most common symptoms experienced by cancer patients who underwent chemotherapy. The symptoms like fatigue,

vomiting, pain, loss of appetite, nausea and disturbed sleep, etc. Identification and management of these symptoms will help the cancer patients to have adherence to the treatment and leads to improvement in the quality of life.

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Author's Contribution:

Mr. Uppu Praveen: Conception and design of the study, acquisition of the data, analysis and interpretation of the data, drafting of the manuscript, approval of the version of the manuscript to be published.

Dr. Meenakshisundaram Manickavasagam: Conception and design of the study, acquisition of the data, drafting of the manuscript, revising the manuscript critically for important intellectual content, approval of the version of the manuscript to be published.

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Table 1: Personal characteristics and clinical information (N=150).

Variable	n	%
Age in years		
≤55	83	55.3
>55	67	44.7
Gender		
Male	51	34.0
Female	99	66.0
Duration of Treatment in months		
≤ 4	91	60.7
>4	59	39.3
No. of chemotherapy cycles completed		
≤ 5	89	59.3
>5	61	40.7

Table 1: (Continued)

Variable	n	%
Type of Chemotherapy		
Curative	87	58.0
Palliative	63	42.0
Stage of cancer		
Stage 1	14	9.3
Stage 2	29	19.3
Stage 3	32	21.3
Stage 4	64	42.7
Lipid Stage	4	2.7
Not applicable	7	4.6

Table 2: Distribution of sample based on Types of cancer. (N=150)

Type of cancer	n	%
Breast cancer	47	31.3
Ovarian cancer	21	14.0
Cervical cancer	6	4.0
Endometrial cancer	5	3.3
Lung cancer	10	6.7
Stomach cancer	10	6.7
Colon cancer	4	2.7
Rectal cancer	13	8.6
Gastro-Intestinal stomal tumor	1	0.7
Cecum cancer	2	1.3
Esophageal cancer	5	3.3
Hepatocellular Carcinoma	2	1.3
Pancreatic cancer	2	1.3
Prostate cancer	3	2.0
Buccal Mucosa cancer	2	1.3
Tongue cancer	1	0.7
Laryngeal cancer	1	0.7
Multiple Myeloma	6	4.0
Hodgkin Lymphoma	1	0.7
Non- Hodgkin Lymphoma	1	0.7
Pre-ampullary Carcinoma	2	1.3
Germ cell tumor	1	0.7
Synovial sarcoma	2	1.3
Anaplastic large cell lymphoma	1	0.7
Ewing's sarcoma	1	0.7

Table 3: Common symptoms experiencing by cancer patients

Symptoms experiencing	n	%
Fatigue	72	48.0
Vomiting	54	36.0
Pain	44	29.3
Loss of appetite	40	26.7
Nausea	25	23.3
Disturbed sleep	19	12.7
Constipation	14	9.3
Diarrhea	11	7.3
Itching	8	5.3
Fever	7	4.7
Oral Mucosities	6	4.0
Skin/nail discoloration	6	4.0
Numbness	5	3.3
Urinary problems	5	3.3
Dyspnea	2	1.3
Stomach fullness	2	1.3