



QUALITY OF LIFE DUE TO ADVERSE DRUG REACTION (ADR) IN PATIENTS WITH HEAD AND NECK CANCER

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ABSTRACT

Introduction: Chemotherapy and immunotherapy are relevant adjuvant therapies in patients with head and neck cancer. The adverse effects of these drugs have an impact on the individual's daily routine life and have to deal with the impact of treatment on its functional aspects. The aim of this study was to assess the quality of life due to adverse effects of chemotherapeutic agents in patients with carcinoma in head and neck.

Method: This was a questionnaire based study on twenty three patients included as per selection criteria. Interview was based on questionnaire based on Quality of Life Core Questionnaire - Cancer 30 (EORTC QLQ-C30).

Results: Appetite loss and constipation were most common treatment related side effects present in 18 (78.26%) and 13 (56.52%) number of patients respectively. The occurrence of pain, insomnia was higher however, nausea, vomiting, were lower range. Overall physical condition of patients during past 1 week was on better side when marked on a scale of 1 (very poor) to 7 (excellent). Overall quality of life of patients was 4 and above for 20 patients.

Conclusion: There is some reduction of quality of life reflected through symptoms of ADR in the patients on chemotherapy. Assessing the quality of life of cancer patients is complex. A large number of variables need to be considered, which impact the patient's self-perception, from their social situation. Further studies are needed taking into consideration of various socio cultural norms and financial issues.

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INTRODUCTION

Treatment of patients with head and neck cancer comprises of surgery, associated with radiotherapy. Chemotherapy and immunotherapy are relevant adjuvant therapies (Cardoso *et al* 2005, de Graeff *et al* 2000). The common anticancer drugs used for chemotherapy for head and neck cancer are Cisplatin, Carboplatin and Paclitaxel. These anticancer drugs are highly toxic with a lot of severe side effects nausea, vomiting, neuropathy nephrotoxicity etc (Wellstein, Giaccone, Atkins and Sausville 2017). The adverse effects of these drugs have an impact on the individual's daily routine life (Stoeckli 2001, Bottomley 2002). Quality of life is the way with which the individual faces the different aspects of his/her life as a whole. According to the World Health Organization (WHO), quality of life (QoL) is defined as individual perception of life, values, objectives, standards, and interests in the framework of culture (Guyatt 1993, Wilson 1995).

It is important to assess the quality of life in cancer patients more so for the add on side effects of the drugs so as to improve the care protocol encompassing with more clinical, social and rehabilitation support measures (Bottomley 2002).

The aim of this study was to assess the quality of life due to adverse effects of chemotherapeutic agents given in patients of carcinoma in head and neck in this part of the country.

METHODOLOGY

This was a questionnaire based, cross sectional observational study. A questionnaire was developed on the basis of the European Organization for Research and Treatment of Cancer QoL Questionnaire (EORTC QLQ-C30) (Neil, 1993) with modification as per our cultural norm. A total of 30 patients from cancer centre of Shri Krishna Hospital, Karamsad, Gujarat were selected for this study after taking permission from Institutional Ethics Committee and with proper informed consent from the patients. Inclusion criteria included the adult patients of both sex suffering from head and neck cancer only, and same patients on Chemotherapy since last 3 months prior to recruitment or those who completed 2 cycles of

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chemotherapy. Other types of cancer, recurrent cases, patients on prolonged treatment for more than 6 months and children were excluded. Out of 30 patients selected, 7 patients did not take part in the interview. Once selected, the patients' record files were checked for noting the medical and drug history. Following that they were interviewed according to the questions in the questionnaire prepared. Data were analyzed as per descriptive statistics.

RESULTS

Out of 23 patients in this study, 18 (78.27%) were males and 5 (21.73%) were females. Mean age of males and females in this study was 48.05 years and 57.4 years respectively. The commonest treatment regimen was Cisplatin + radiotherapy in 12 (52.17%) patients followed by carboplatin + radiotherapy in 3 (13.04%) patients and carboplatin + paclitaxel in 3(13.04%) patients. Treatment related symptoms/ side effects are shown in table 1. Appetite loss and constipation were most common treatment related side effects present in 18 (78.26%) and 13(56.52%) number of patients respectively. Treatment related discomforts are shown in table 2. Trouble during strenuous activities and limitation in doing daily work or household jobs were most common treatment related discomforts in 19(82.6%) and 15(65.22%) number of patients respectively. Overall physical condition of patients during past 1 week was on better side when marked on a scale of 1(very poor) to 7(excellent). Overall quality of life of patients was 4 and above for 20 patients which was on better side when marked on a scale of 1(very poor) to 7(excellent). For rest 3 patients it was below 4.

Table 1 Symptoms of Adverse drug reactions in patients receiving Chemotherapy

Symptoms	No of patients in which present
Fatigue	8 (34.78%)
Nausea and vomiting	8 (34.78%)
Pain	18 (78.26%)
Dyspnoea	2 (8.69%)
Sleep disturbance	8(34.78%)
Appetite loss / Metallic taste	18 (78.26%)
Constipation	13 (56.52%)

Table 2 Discomforts perceived by patients following 2 cycles of chemotherapy in daily routine

Discomfort	No of patients in which present
Have to stay in bed through the day	7 (30.43%)
Unable to work at a job or do household jobs	7 (30.43%)
Limited in doing your work or household jobs	15 (65.22%)
Trouble during strenuous activities	19 (82.6%)
Trouble taking a long walk	14 (60.87%)
Trouble taking short walk outside the house	3 (13.04%)
Need help with eating,dressing,using toilet	1(4.34%)
Worried about financial impact	8 (34.78%)

DISCUSSION

QoL refers to “global well-being,” including physical, emotional, mental, social, and behavioral components. In the last few years, a number of informative and valid QoL tools have become available to measure health-related QoL (Rizzo et al 2008). This is an early indicator of disease progression, which can help the physician to closely monitor the patients (Velikova et al 2008). The current study assessed the QoL on the basis of EORTC QLQ-C30, the most widely applicable instrument to measure the QoL in cancer patients undergoing

chemotherapy. In this study, the majority of the patients who completed 2 cycles of chemotherapy reported a fairly favorable QoL (Table 2). This may show that QoL is directly related to cancer treatment procedure, i.e. CT. Limitation in doing household jobs, trouble during strenuous activities, trouble taking a long walk reported by many patients are the major issues affecting quality of life. This indicates that the adverse events associated with anticancer drugs not only interfere with movement and activity but also exacerbate the patients' physical and psychological states. Though not statistically determined but there is definite reduction of quality of life for some common symptoms that are reflected in physical, social and general health. Other results are consistent with other studies.

This study provided some preliminary data on local cultural norms. Our study has several limitations. Sample size limitations necessitated the use of rather wider cultural categories based on a mix of both language and geographic parameters. Ultimately, larger scale studies in individual states are needed in order to evaluate impact of adverse events associated with the first course of outpatient chemotherapy on the QOL.

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