



A CROSS SECTIONAL STUDY ON QUALITY OF LIFE IN HEAD AND NECK CANCER PATIENTS AFTER PALLIATIVE TREATMENT IN A TERTIARY CARE CENTRE, CENTRAL INDIA.

Dr. Renu Rajai 3rd Yr MD, Dept of Community Medicine.

Dr. Hemant Kumar Mittal 2nd yr MD, Dept of Radiotherapy.

Dr. R.R. Wavare Dean, SAMC Medical College And P.G. Institute.

ABSTRACT **BACKGROUND:** Cancer reflects a major load on human health by way of morbidity, mortality and above all, human suffering and palliative care is a boon to these sufferings.

OBJECTIVE: To assess the quality of life in head and neck cancer patients before and after palliative care and treatment.

METHODOLOGY: 110 terminally ill head and neck cancer patients attending the oncology department were enrolled in the study after taking informed consent. The quality of life (QOL) was assessed by EORTC-QLQ C-30 version 3, at baseline and after 1 week of palliative care treatment.

RESULT: QOL data was received before and at the end of one week of palliative treatment, paired t-test was applied and was found highly significant ($t=32.08, P>0.0001$)

CONCLUSION: Quality of life was highly improved when palliative care and treatment was given to terminally ill head and neck region cancer patients.

KEYWORDS : Quality of life (QOL), EORTC QLQ C30 VERSION 3, head and neck cancer.

BACKGROUND:

Recently the health care community has recognized the importance of using Quality of life (QOL) measurement as an essential component of a treatment modality's efficacy.¹ At every stage of the disease the treatment choices vary and this should be held in the interest of the patient, offered as cafeteria choice. Study by Lewin T in New York reveals that physicians should place all the choices for their patients and educate about all the treatment modalities and routinely ask about their wishes for medical care.² Such communication is specially required when the achievement of a peaceful death assumes priority over inappropriate prolongation of dying.

Quality of life is subjective in nature, therefore there has been wide agreement that health related quality of life should be conceptualized as a multidimensional construct.³ Physical functioning, disease and treatment related symptoms, psychological/emotional wellbeing and social interactions are critical domains that are included in most efforts to measure overall quality of life.⁴ Quality of life assessment can be helpful in weighing the risks and benefits of treatment options especially when the differences in survival are subtle.⁵

Comprehensive, yet efficient, questionnaires are needed to measure QOL in cancer patients for which many valid assessment instruments have been developed as EORTC (European organization for research and treatment of cancer)⁶, the functional assessment of cancer treatment (FACT).⁷ In 1986 the European organization for research and treatment initiated a research program to develop an integrated, modular approach for evaluating the quality of life of patients participating in international clinical trial.⁸ EORTC with its clinical focus and its multicultural orientation provides a rather unique context for developing and testing quality of life questionnaires.⁹ EORTC with its clinical focus and its multicultural orientation provides a rather unique context for developing and testing quality of life questionnaires.⁵

The questionnaire are found to be concise, qualitative and scored, easily used; it has been designed primarily for patient use. It became evident from the qualitative assessment on the patient's description on their quality of life that there is a need to participate in the treatment process; this would give them a sense of control over their fatal disease.¹⁰

The purpose of this study was to assess the quality of life before and after giving palliative care in head and neck cancer patients.

MATERIALS AND METHODS:

All the patients enrolled in the study were symptomatic head and neck cancer patients selected in the study by means of palliative treatment modality. The study was carried out in the radiotherapy department of the tertiary care centre of Indore where all head and neck region cancer

patients with age >18 yrs and, conscious, no cerebral metastasis or no psychiatric disorder and was able to respond with full cognition response was in his/ her local language, at his/her comfortable timings of the day; by taking written informed consent all the patients were included in the study. Of 110 patients 7 patients had incomplete forms which were eliminated from the study and finally 103 patients' data was processed. Institutional ethical committee clearance was obtained.

Instrument used:

The PQLI scale EORTC QLQ C 30 version 3 was used. This is a 30 questioned scale and the data was obtained before and after 1 week of palliative treatment. The QLQ-C30 incorporates nine multi-item scales: five functional scales (physical, role, cognitive, emotional, and social); three symptom scales (fatigue, pain, and nausea and vomiting); and a global health and quality-of-life scale. Several single-item symptom measures are also included. The study was conducted from August 2014-January 2015. The scoring was done by allotting scores out of highest numbering which amounts to 126 marks of 30 questions.

The patients were asked to complete the questionnaire twice, with one week interval. This short interval was chosen because of the risk of sudden changes in the health, avoiding loss to follow up of patients, knowing the changes in the patient's health status and we accepted the completed data form as per the feedback too. The questionnaire was collected immediately after completion. The instrument was designed primarily to be a self-assessment but where the patient's condition did not permit, researcher helped them out.

Statistical Analysis: The data collected before and after one week was scored and entered in excel sheets where student paired 't' test was applied.

Table 1: Table illustrating the demographic details of head and neck cancer patients:

Mean age (N=103)		50.8 yrs			X ²	P-value
Sex:		female	Male	total		
	59 (57.28%)		44 (42.71%)	103		
Marital status	Married	27	21	48(46.60%)	0.157	0.924
	Widow	30	21	51(49.51%)		
	Unmarried	2	2	4(3.88%)		
Education ⁺	Illiterate	17	4	21(20.38%)	11.28	0.010*
	Middle school	18	8	26(25.24%)		
	High school	20	28	48(46.60%)		
	Graduate	4	4	8(7.78%)		

+education has been classified according to socioeconomic status scale of kuppusswamy(urban, 1976) updated for June 2012.

*statistically significant at $p < 0.05$
() percentage is expressed in parenthesis.

Table 2: Table illustrating the frequency of type of cancer in head and neck region cancer patients.

Type of cancer	Frequency	Type of cancer	Frequency
Ca Buccal mucosa	35(33.98%)	Ca Nostril	2(1.94%)
Ca Pharynx	13(12.62%)	Ca Esophagus	3(2.9%)
Ca Tongue	24(23.30%)	Ca Tonsil and other lymph nodes	7(6.8%)
Ca Lower alveolus	6(5.8%)	Ca left Parotid	3(2.9%)
Miscellaneous head and neck Ca	10(9.7%)		

Table 3: Comparison of Quality of life of head and neck cancer patients.

Paired 't' test	Mean	SD	t test value	P-value
Before	1.34	0.163	32.08	<0.0001*
After	2.498	0.341		

*highly significant.

RESULT:

Table 1 Illustrates demographic details of head and neck cancer patients, in which females are 59 (57.28%) and males 44 (42.71%). The present study found that increasing education in females patients is statistically associated ($X^2=11.28, P= 0.010^*$) in comparison to educated male patients, this may be due to smoking, alcohol or chance alone and no statistical significance seen in married or single.

The various cancers in the head and neck region are expressed in percentages where Ca buccal mucosa unilateral and bilateral, Ca Tongue and Ca Pharynx cases constituted almost 70%.

Table 2 Illustrates the applied paired 't' test on the scored data of 103 patients which was found to be highly significant.

DISCUSSION:

The strength of the study was a short questionnaire. A long format of questions and at a time many questions may annoy the patients and interfere with rest, so it was avoided. Axelsson B, Sjöden P¹¹ also stressed on a short questionnaire in comparison to lengthy ones.

Further patients were pleased to know that not only that they knew about their treatment and were asked about the type of treatment preferred, but also that doctors took interest in knowing about their quality of life.

Quality of life research can provide the researcher and the clinician with a clearer view of the impact that a cancer treatment has on a patient's life, this is also clear when we look at the questions of this instrument.¹⁴ PQLI assessment done by Mystakidou K et al² also reveals that the scale is reliable and valid by all means.

Aaronson NK, et al.^{6,8} in the European Organization for Research and Treatment of Cancer and Winer EP¹⁴, while studying quality-of-life research in patients with breast cancer used the same instrument and found the results to be significant. The study is just one of its kind till date in head and neck cancer patients.

Conclusion And Recommendations:

The palliative care and treatment is required by all terminally ill patients and should be recommended for improving the quality of life. Quality of life instrument EORTC QLQ C-30 version 3 is a reliable measure^{1,5,6,9} for the assessment of quality of life in patients with advanced cancer of head and neck region. This tool can be further used in various other streams and by the patients themselves.

Limitation: In the assessment of palliative care quality of life number of variables can be used for assessing, although the scale used is the best till date, still other scales of assessment could have been taken together in the analysis.

Conflict of interest: No conflict of interest.

REFERENCES:

- Walsh D: Palliative care: management of the patient with advanced cancer. *Seminars in Oncology* 1994, 21(7):100-106.
- Lewin T: Ignoring "Right to die" directives. *Medical Community is being Sued.* The New York Times :A1. 2 June 1996.
- Cella D, Tulskey D: Measuring quality of life today: Methodological aspects. *Oncology* 1990, 4:29-38.
- Jocham HR, Dassen T, Widdershoven G, Halfens R: Reliability and validity of the EORTC QLQ-C30 in palliative care cancer patients [Internet]. SpringerLink SP Versita; 2009.
- Mystakidou K, Tsilika E, Befon S, Kululias V, Vlahos L: Quality of Life as a parameter determining therapeutic choices in cancer care. *Palliat Med.* 1999;13:385-392. doi: 10.1191/026921699669663451.
- Aaronson NK, Ahmedzai S, Bergman B et al.: The European Organization for Research and Treatment of Cancer QLQ-C30: A quality-of-life instrument for use in international clinical trials in oncology. *J Natl Cancer Inst* 1993, 85:365-376.
- Cella DF, Tulskey DS, Gray G, Sarafian B, Linn E, Bonomi A, Silberman M, Yellen SB, Winicour P, Brannon J et al.: The Functional Assessment of Cancer Therapy scale: development and validation of the general measure. *J Clin Oncol* 1993, 11(3):570-9.
- Aaronson N, Ahmedzai S, Bergman B et al.: The European Organization for research and treatment of cancer QLQ-C30: A quality-of-Life instrument for use in International clinical trials. *J Natl Cancer Inst* 1993, 85(5):365-375.
- Mystakidou K, Tsilika E, Parpa E, Kalaidopoulou O, Smyrniotis V, Vlahos L: The EORTC Core Quality of Life Questionnaire (QLQ-C30, Version 3.0) in terminally ill cancer patients under palliative care: validity and reliability in a Hellenic sample. *Int J Cancer* 2001, 94:135-139.
- Rodin J: Health, control, and ageing. In: *The Psychology of control and ageing* Edited by: Baltes MM, Baltes PB. Hillsdale, NJ: Erlbaum.
- Axelsson B, Sjöden P: Assessment of Quality of Life in Palliative Care (Psychometric properties of a short questionnaire). *Acta Oncol* 1999, 38(2):229-237.
- Georgaki S, Kalaidopoulou O, Liarmakopoulos I, Mystakidou K: Nurse's attitudes towards truthful communication with patients with cancer. *Cancer Nurs* 2002, 25(6):436-441.
- Mystakidou K, Parpa E, Tsilika E, Kalaidopoulou O, Vlahos L: The families evaluation on management care, and disclosure for terminal stage cancer patients. *BMC Palliat Care* 1:3. April 10 2002.
- [Internet]. 2016 [cited 25 March 2016]. Available from: <http://eortc qlq c30 version 3 questionnaire>.
- Winer EP: Quality-of-life research in patients with breast cancer. *Cancer* 1994, 74(1):410-15.