

Life Quality Assessment of Patients Suffering from Oral Cancer

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ABSTRACT

Objective: This study was aimed to determine the patient's own perception of quality of life (QL); that were under treatment for oral cancers. University of Washington Quality of Life Questionnaire (UW-QOL)¹ was used as a screening tool for this purpose.

Study Design: Questionnaire based Cross Sectional Study.

Place and Duration of Study: This study was conducted at Kiran hospital Karachi, (Karachi Institute of Radiotherapy and Nuclear Medicine) from March to August 2011.

Materials and Methods: Thirty patients diagnosed with oral cancer that were coming for treatment at the Kiran hospital Karachi, (Karachi Institute of Radiotherapy and Nuclear Medicine) were included in the sample. No limitation of age or cancer stage was specified.

Result: Data analysis with SPSS showed that majority of patient surveyed had pain that was controlled by medications; majority of patient felt significantly disfigured; had limited activities. Although activities were slowed down due to fatigue still patients managed to go out however enjoyable recreation was bounded for patients. Swallowing function showed variation from no change, complete liquid diet, soft diet to choking. However most patients could chew soft foods, majority of patient had difficulty with some words but their speech was understood on phone. Greater parts choose no issue regarding function and pain in shoulders. Almost half the patients had normal consistency of saliva, mood mostly unaffected and majority patient were not anxious about their tumour lesion. General health was better before development of cancer and was good in previous seven days. Over all mental health and spiritual health was outstanding and pain was the most important issue patient complained.

Conclusion: This study emphasizes the importance of measuring quality of life of oral cancer patients. UW-QOL¹ questionnaire was an effective screening tool for evaluating the different domains from each patient at an individual level.

Keywords: Head and neck cancer, quality of life, Health related quality of life.

INTRODUCTION

Most cancers worldwide and in Pakistan are diagnosed when already reached advance and incurable stage^{1,2}. There is a general need to access the quality of life (QL) in the developing nations and build a structure that exists commonly in the West.² QL is further specified as health-related quality of life (HRQOL).³ Management of cancer has increased effectiveness, when applying patient's HRQOL.⁴ The ability to measure the QL has the realistic value of guiding policymakers, health service researchers, epidemiologists, program evaluators, and clinicians engross in the effects of interventions.⁵ The measures regarding QL also provide useful information to patients and family members, third-party payers, and employers.⁵ Self-oriented evaluation is a practical procedure for assessing the effectiveness of therapies.⁶

It is the most important parameter to consider in diagnosis and post-treatment follow-up. Cancer of oral cavity has the highest prevalence in South-east Asia 9.8%.⁷ Rating Karachi as the city of highest incidence of oral cancer of the world.⁸ GLOBOCAN⁷ estimates in the next 20 years an annual increase of new cases to

rise up almost 21.4 million while mortality from cancer will be over 13.2 million.²

Overall maximum record of survival is 5 years after initial diagnosis of oral cancer and hasn't changed appreciably since 1979-1978.⁹ Prognostic factors determine survival of patient.¹⁰ Advanced staged with secondary reoccurring tumours will have less survival rate.^{10, 11, 12}

This study evaluates the disease free period and the good quality of life (QL) of oral cancer patients who were undertreatment. This Performa based study will facilitate to structure a baseline data to improve patient suffering from this fatal disease in our country.

MATERIALS AND METHODS

University of Washington questioner (UW-QOL)¹ was selected for this survey. Duration of study was approximately six months. Patient diagnosed and under treatment of oral tumours and admitted in general or private ward of KIRAN hospital Karachi. Patients of both genders were included.

Performa was provided to each patient. To minimize deviation of interpreting questions, each questionnaire and scoring option was verbally translated by the surveyor or attended to the patients as maximum input

from patient's view of his/her quality of life was to be recorded. . Questionnaire composed of sixteen questions total divided into three domains' physical, social and mental health of patient. Twelve questions affecting physical and social behavior as indicated by patient which are pain, appearance, activity, recreation, swallowing, chewing, speech, shoulder, taste and saliva. Three questions related to social and mental health and one question indicating the most important issue faced by the patient due to this disease. Scoring was done from 0-100, 0 considered the worst possible outcome and 100 considered best possible outcomes. Physical questions were divided into five domain score whereas social function had six domains to score.

Before starting any interview a consent form was provided and only willing patients were included for this study.

The data was entered in the statistical software for windows SPSS. The score were categorized into their particular domains. Descriptive data was obtained based on the range of categories and the most frequently chosen answer for each question along with its percentage.

At the end Spearman correlation was computed between the variables taste, saliva, mood and anxiety and all the sixteen questions of the questionnaire. Cancers other than oral cavity were excluded from the study.

RESULT

A total of 30 patients responded to the questionnaire out of which the result indicated that pain score range was between 1-5, minimum 1 indicating patient has no pain and maximum 5 indicating patient has severe pain which is not controlled by medication. Mode was 3, making it lie in moderate pain range, which requires regular medication to control. This means that most of the patients (38.7%) manifested pain that was controlled by medications.

Appearance ranged between minimum 1 which indicates no change in patient's appearance and maximum 5 showing severe social breakdown due to patient's appearance. The mode 3 means that majority of patient feel (35.5%) significantly disfigured have limited their activities.

Score range of activity was between 1 which is minimum indicating that patient is active as before and 5 maximum indicating patient is bed ridden and doesn't leave home. Mode was 3 so statement most chosen (41.9%) was I am often tired and have slowed down my activities although I still get out.

Recreation score range was 1-5 indicating minimum 1 as patient had no limits to recreation activities at home or outside and maximum 5 suggested that the patient was unable to do anything enjoyable. Mode 5 was computed by 35.5 % of which means most patients did not do anything enjoyable.

Swallowing ranged between minimum 1; signifying patient was able to swallow as before and maximum 4 indicating the patient choked while swallowing food. Mode resulted as multiple ranges by a percentile of 29.0 patients.

1-3 was the score range of chewing .1 indicated that patient had no change in chewing function and 3 indicates that patient could not chew even soft food. A percentile 41.9 resulted making the mode resulting in multiple ranges.

Speech maximum range was 4, which denoted speech was unchanged and minimum was 1, which denoted patient's speech was not understood at all. Mode calculated as 2 which means majority patients (38.7%) had difficulty with some word but their speech was understood on phone.

Question regarding shoulder pain ranged between minimum 1 indicating patient had no complain about their shoulder while maximum 3 suggested that patient were forced to change their work or hobbies due to weakness in their shoulder. Mode was 1 by 67.7%, which indicated patients of oral neoplasm, had no issues with their shoulders.

Taste was between 1-4. Patient could taste food normally was indicated by minimum range 1 and patients who were unable to taste any food by maximum 4. Mode 1 was chosen by a of percentile 35.5 patient.

Saliva ranged between 1 minimum, which indicated normal consistency of saliva and maximum 4 indicated complete absence of saliva and mode was 1 chosen by a of percentile 41.9.

Minimum and maximum range 1-5 was of mood .1 indicated no change in patient mood due to cancer resulting while 4 suggested extreme depression by patient. Mode resulted as 2, which indicated mostly patient's mood, were good unaffected due to cancer and was chosen by 41.9%.

Anxieties ranged between minimum 1 implying patients were not anxious with their cancer lesion and maximum 4 indicated extremely conscious about their cancer, Figure 1. A percentile 35.5% selected mode 2. Table 1 displays result of mode and range of all the variables.

Three questions were related to general health of patients. The first question compared present to the month before development of cancer. The score for this question was ranged between 1-5 with a mode of 1 indicating that most patients (67.7%) believed their life was much better before development of cancer.

The second question rated general health during last 7 days of the patient and most of the patient (25.8%) indicated it to be good.

Last question was overall quality of life during last 7 days regarding patient's mental, physical, spiritual, and overall health options ranged between 1-6. 61.3% suggested it as outstanding.

Table No. 1: Score Range of Activity.

	Mode	St. Devia tion	Range	Min	Max
Pain	3	1.00	4	1	5
Appearance	3	1.03	4	1	5
Activity	3	1.05	4	1	5
Recreation	5	1.49	4	1	5
Swallowing	1.00a	1.08	3	1	4
Chewing	2	0.70	2	1	3
Speech	2	0.95	3	1	4
Shoulder	1	0.67	2	1	0
Taste	1.00a	1.33	3	1	4
Saliva	1	0.91	4	1	4
Mood	2	1.19	4	1	5
Anxiety	2	1.07	3	1	4
QL before cancer	1	1.29	4	1	5
HQL last 7 days	2a	1.36	5	1	6
QL last 7 days	1	1.66	5	1	6
Most imp issues last 7 days	1	2.63	11	1	12

N=30

a multiple modes exist. The smallest value is shown

Table No.2: Co-relation performance.

UW-QOL	Taste	Saliva	Mood	Anxiety
Pain	-.006	0.159	-0.011	-0.026
Appearance	0.003	0.011	0.411*	0.180
Activity	0.017	-0.17	0.536**	0.82
Recreation	0.417*	0.390*	0.438*	0.167
Swallowing	0.427*	0.351	0.335	0.161
Chewing	0.527**	0.221	0.381*	0.223
Speech	0.455*	0.394*	0.359	0.349
Shoulder	-0.273	-0.092	-0.004	-2.43
Taste	1.00	0.401*	0.368*	0.308
Saliva	0.401*	1.00	0.326	0.235
Mood	0.368*	0.326*	1.00	0.542**
Anxiety	0.308	0.235	0.542**	1.00
HRQOL, compared to month before cancer	-.034	-0.231	0.103	0.328
In general, HRQOL during the past 7 days	0.180	0.116	0.679**	0.345
Overall QL during past 7 days	0.185	-0.060	0.496**	0.606**
Emotional Function (EF)	-0.327	-4.74**	0.051	-0.098

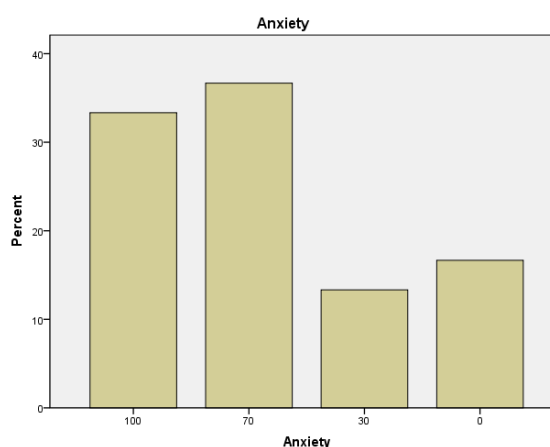
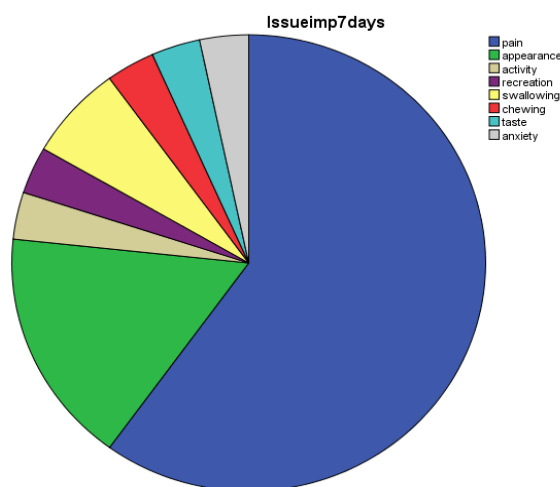
Correlation is significant at the 0.05 level (2-tailed)

Correlation is significant at the 0.01 level (2-tailed)**

Correlation is significant at the 0.01 level (2-tailed)*

In the end the perform was concluded by asking the patient about the most important issue which each patient countered during the last 7 days the result of each is displayed in chart 1. Spearman correlation performed between the variable taste, saliva, mood and anxiety with all the sixteen Questions is shown in Table 2.

Table 2 indicates that mood was positively correlated with appearance, activity, anxiety, recreation, chewing and general health of patient during and overall health of patient during the last 7 days. Taste was positively related to swallowing, chewing, recreation, saliva, mood and speech function of patient. Consistency of saliva was positively correlated to speech, taste, mood and recreation. Anxiety was positively correlated with mood and HRQOL overall QL during last 7 days.

**Figure No.1: Percentage and anxiety.****Chart No.1: Co-relation performance between variable text.**

DISCUSSION

Quality of life refers to the difference that exists between ones perception of reality and what he expects or wishes out of life.¹³ The greater the gap that exists

between this reality and desires, the poorer is ones quality of life. To measure the magnitude of this gap a multidimensional approach is required which would include a thorough analysis of the physical, emotional, social and spiritual well being all of which is well represented in the UW-QOL¹ questionnaire hence a study of QL for head and neck cancer patients is of grave importance.¹⁴

This study represents an effort to highlight the quality of life and general health of oral cancer patients in Karachi undergoing treatment at KIRAN hospital. Capturing patients views through literature review was considered crucial in judging survival of patients which has not improved much over the past 20 years¹⁵.

According to assessment of this survey pain component was most important issue reported and tolerated during treatment phase of oral lesions. However regarding their mood and anxiety variation was minimum when compared to other studies in literature^{15 16} Although patients were in different stages and also had different types of oral neoplasm, their treatments and economic status was varied evidently still it can be strongly suggested that cultural, religious and spiritual values have a great influence on how pain issue is managed.^{17,18} Mostly patients had deep faith in their religion, which taught them to be enduring, less complaining and gave them a strong inner will to stay calm and tolerate. Family support, friends and other caregivers are a part of our culture and creed that gives the patient the will to survive. It is concluded in many studies social linked support to patients decreased anxiety and depression levels and could even enhance general health of patients who rated it low.^{17,18}

In this survey disfigurement of facial appearance was second most dominant complain.

This survey also computes variation in measurement of function of swallowing and chewing.

According to this study saliva consistency was normal, patients could chew soft food and differentiate between tastes while others have less to complete absence of saliva and complete liquid diet or on feeding tube. This presence of variation was again due to different stage and treatment therapy of patients, which was not recorded. As it is proven that High dose radiation to salivary gland caused xerostomia, hence patients with advanced treatments may exhibit this feature to a greater extent.¹⁹.

Patients rating about their overall general health including mental and spiritual health were regarded as outstanding in this survey. This again would be due to the close knit social set up and high spiritual values in our cultural setting.. Hence the aspect of appearance and activity has a grave impact on the mood of the patient, which would lead to quick recovery and better post treatment prognosis.²⁰

CONCLUSION

We conclude that patients of KIRAN hospital had a good quality of life where pain was most common affecting their quality of life and anxiety was the modality least affecting their quality of life. Hence a better focus on the control of patient's pain can lead to an improvement of the overall QL of patients and further increase the chances of good post treatment prognosis and recovery.

The author also suggests that recording of QL should be made an integral part of every cancer assessment record.

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