Predictors of anxiety and depression among lung cancer patients attending palliative care department : an experience from rural cancer centre

OncoPrime Kolhapur Cancer Centre — Nurturing Hopes... Saving Lives.

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BACKGROUND

Lung cancer (LC) is the leading cause of cancer death in men and second most common cause in women. It is not only associated with high mortality but also with high morbidity. Psychological factors among lung cancer patients have been shown to be constantly associated with poor quality of life (QOL).Anxiety and depression are two common psychological symptoms reported among lung cancer.

AIMS AND OBJECTIVES

To define the predictors that affect depression and anxiety among the patients with lung cancer attending palliative care department.

METHODS

A prospective observational study was conducted on lung cancer patients. The study duration was for one and half years [January 2020 to June 2021]. The study was conducted in the department of palliative care of Kolhapur Cancer Center. We have included 63 patients of histologically confirmed lung cancer. All the cases whose diagnosis was uncertain, who were on treatment for psychiatric disorders and whose performance status was poor were excluded from the study. The following have been employed in the study: hospital anxiety and depression scale (HADS) for assessment of anxiety and depression; Edmonton symptom scale (ESAS-r) for assessment of various symptoms of the patients.History of chemotherapy, radiotherapy, surgery and associated co-morbidities were noted down. Univariate analysis was used using chi square test or fisher's exact test. Logistic regression analysis using Wald's method was used to find the predictors for depression and anxiety.

RESULTS

Table 1: Demographic particulars of the sample

Demographic particulars Age group	Frequency	Percentage
40 to 50	10	15.63
50 to 60	18	28.13
61 to 70	19	29.69
>70	17	26.56
Gender		
Female	31	48.44
Male	33	51.56
Associated diseases		
Hypertension	17	26.56
Diabetes mellitus	21	32.81
Ischemic heart disease	4	6.25
Psychiatric disorders	11	17.19

The mean age of the cases was 61.12 ± 12.23 years with male preponderance. Non small cell carcinoma was the most frequent histological type.

Table 2: Symptomatology of the present sample (n=64)

Symptomatology	Frequency	Percentage
Pain (All sites)	37	57.81
Fatigue	32	50.00
Nausea and vomiting	12	18.75
Anxiety	16	25.00
Depression	13	20.31
Cough (Dry+Expectoration)	33	51.56
Anorexia	40	62.50
Haemoptysis	20	31.25
Breathlessness	35	54.69
Weight loss	17	26.56

Table 3: Regression analysis with anxiety as the outcome

Independent factors	Beta coefficient	P value	Odds ratio	95% Lower CI	95% Upper CI
Small cell histology	-1.74	0.057	0.176	0.029	1.053
Radiotherapy	-3.19	0.003	0.041	0.005	0.348
Breathlessness	4.66	0.000	106.62	10.02	1133.64
Hypertension	2.38	0.014	10.86	1.61	73.12

Nagelkarke R^2=0.624; Hosmer and Lemeshow Test (Significance=0.992)

After regression analysis of various factors, the most important predictors for anxiety were presence of breathlessness [p<0.001], hypertension [p=0.014], histological type of small cell carcinoma [p=0.045] and those patient who received radiotherapy [p=0.003].

Table 4: Regression analysis with depression as the outcome

Independent factors	Beta coefficient	P value	Odds ratio	95% Lower CI	95% Upper CI
Radiotherapy	1.44	0.046	4.24	1.02	17.53
Fatigue	1.53	0.044	4.63	1.04	20.60
Breathlessness	1.98	0.010	7.30	1.62	32.98

Nagelkarke R^2=0.387; Hosmer and Lemeshow Test (Significance=0.537)

Similarly, the most important predictors for depression were presence of fatigue [p=0.044], breathlessness [p=0.010] and those patients who received radiotherapy [p=0.046].

CONCLUSIONS

Breathlessness, history of hypertension, small cell carcinoma and those patients who received radiotherapy were important factors that affect the symptom of anxiety.Fatigue, breathlessness and the patients who received radiotherapy were the important factors that affect the symptom of depression. Depression and anxiety are often over looked symptoms. Early identification and prompt treatment of these symptoms will improve the quality of life of the patients. Efforts should be made to alleviate these symptoms including providing access to supportive/palliative care teams.