



Risk Factors and Quality of Life of Lung Cancer Survivors in Lahore, Pakistan

**Rehan Ahmad Khan Sherwani¹, Sajjad Ali Gill^{2*}, Saba Younus¹, Sana Saeed¹,
Nadia Saeed¹ and Hira Shahid²**

¹College of Statistics and Actuarial Sciences, University of the Punjab Lahore, Pakistan.

²Department of Sports Sciences and Physical Education, University of the Punjab Lahore, Pakistan.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: The objectives of this study is to determine the risk factors of lung cancer were patients and investigate the quality of life of lung cancer survivors. The occupational, smoking, personal, environmental and family history of the survivors are investigated. The well-being of the survivors with physical and social norms not were also studied.

Methods: Risk factors and quality of life from a sample of 50 lung cancer patients investigated through a self-administered questionnaire after getting consent from the hospital management and the patients. All the analysis has been done in SPSS 21.

Results: Most of the lung cancer patients were male smokers with a strong history of smoking, and more than half of the respondents inhaled while smoking cigarettes. The significant risk factors among non-smokers are occupational history, personal history, environmental history, and family history. The impact of environmental history with smoking history is observed in lung cancer patients. The physical well-being of the patients is considerably affected by the disease and the pain in their daily activities.

*Corresponding author: E-mail: drsajjadgill@gmail.com, sajjad.sspe@pu.edu.pk;

Conclusion: Smoking remained the leading risk factor of lung cancer patients followed by radon. However, family history is found statistically significant in the prevalence of lung cancer. Authorities should draw and implement some guiding rules to control smoking, radon, and air pollution, particularly in residential areas.

Keywords: Lung Cancer; risk factors; quality of life.

1. INTRODUCTION

Lung cancer is among the leading causes of death worldwide and is the second most common disease of cancer in men and women [1]. Although the prevalence of the disease among men (1 in 13) is higher than women (1 in 16) but the prevalence of the disease is comparatively higher in smoking women than in smoking men [2]. Approximately 13% of all newly registered cancer patients were lung cancer and shares 27% in all cancer deaths. In 2013, more than ninety thousand deaths in Pakistan were due to various forms of cancer and the number of lung cancer patients has been doubled between 1990 and 2013 [3].

Anything that can develop an individual's risk to suffer a disease such as cancer is called a risk factor. Different forms of cancer can have some similar or different risk factors. Although lung cancer occurs in an individual age between 55 to 65 years, majority diagnosed after 65 years of age and due to late diagnosing, the survival rate is low in the disease [4]. Researchers consider smoking as a leading factor of lung cancer because at least 80% of the lung cancer deaths were smokers [5,6]. Even if you are not a smoker but lives or breathe in a smoking environment (second-hand smoke), your risk of having lung cancer is approximately 30% [7]. This means workers who are working in a smoked workplace are also at a risk to get lung cancer [8,9].

Radon is the second leading risk factor of lung cancer. It is a gas that resulted in the demolition of uranium of rocks or soil [10]. Textile plants, mills, shipyards, mines, and the places where insulation is used have asbestos fibers and are considered a significant risk factor for the prevalence of lung cancer. The likelihood of lung cancer among the workers of these places is high [11]. People living in polluted areas are also at a slight risk of having lung cancer and approximately 5% of lung cancer deaths were due to outdoor air pollution. People living near factories or heavily trafficked roads are at high risk [12]. If a person is diagnosed at a younger age, then the chance of spread of the disease

among other family members also increases [13]. Lung cancer survivors also suffer associated diseases like tuberculosis, bronchitis, pleurisy, ascites, etc [14].

The recent tendency of articles on quality of life indicates the significance and the importance of this issue in oncology research. An assessment of the quality of life is not only important concerning ratings of survivors' health care professionals but also for the awareness of their health-related quality of life issues which might be helpful for them to manage their physical, psychological, and social aspects of their lives [8,15].

2. MATERIALS AND METHODS

About 120 lung cancer patients from leading cancer hospitals located in Lahore, Pakistan are contacted to collect the information during Nov-Dec, 2020. A self-administered questionnaire was designed to measure the risk factors and quality of life of lung cancer patients. From the contacted patients, only 50 provided complete information about their disease and the quality of life. All the collected data is entered, screened, and analyzed by SPSS v 21.

3. RESULTS

Most of the respondents are male (84%) and their age ranges from 30 to 72 years with 55 ± 11.6 . About 60% belong to an urban area, 72% work in manufacturing industries, 80% qualified up to matric, 78% with no family history of lung cancer. Whereas 76% have a positive family history of smoking and their income ranges from 10000 to 50000 with 25940 ± 9820 . Most of the patients are smokers (76%) while 56% of them had changed their pattern of smoking after the diagnosis. Almost all the respondents (98%) had mucus during cough, 84% had noisy sound (wheezy, whistling, or rattling) from the chest when they breathe, 24% drink alcohol, 58% had chronic bronchitis, 38% had Emphysema, 84% had Asthma, 76% had Tuberculosis, 24% had Lung disease other than cancer and 36% had diabetes.

Half of the patients (50%) live in an industrial area and 78% reported that their area is polluted. Approximately 36% of the patients are aware of the effect of radon, 70% thought their current health is due to their workplace, and 62% work at a place exposed to dust, chemicals, fumes, or metals. Only 28% of the patients said that they were ever advised to wear respiratory (breathing) protection (e.g., facemask or hood), 20% work in the chemical industry, and 62% had been exposed to heavy second-hand smoke at work.

About 96% of the patients feel weak and 92% had trouble meeting the needs of their families due to the disease. Many of the patients (86%) had pain in their body due to lung cancer, 70% had nausea, 92% were ill, 60% lost their hair and 78% reported the change in taste of food or drink. More than two-thirds (78%) of the patients were advised for complete bed rest and 78% were bothered about the side effects of their treatment. More than 80% of the patients had family emotional support while 70% were satisfied with family communication about the disease status.

Only 14% of the patients are living pleasantly, 24% can work at the office, 28% sleep well, 86% are affected in their daily works due to the disease, 66% have a difficulty in concentrating on things, 92% feel tense and irritable.

4. DISCUSSION

Smoking is the leading cause of the prevalence of lung cancer and the policies regarding avoidance of the beginning of smoking in teenagers can reduce the prevalence of the disease in the future. Radon is the most significant factor among non-smoker lung cancer patients. So, the factor of radon-proof must be in consideration while constructing new buildings, and old buildings with high absorption of radon must be identified. The incidence of lung cancer is high among the workers of the manufacturing industry like transport equipment, metal goods, and in associated fields of transport.

Quality of life is closely related to the signs and severity of lung cancer. The physical functioning of the survivors significantly affected by the disease that leads to their loss of jobs and finance. The effect of fatigue reduced their ability to wake up early; manage their daily routine works, visit the hospital for treatment, give up their hobbies, low energy to take care of their children, living with vagueness, and as a sick

person. Survivors of the disease were satisfied from social well-being might be due to the reason of joint family systems in Pakistan as the social values in the region force family members often to step forward to contribute to the financial and emotional support of the survivors.

5. CONCLUSION

Every year thousands of lives in the world have been claimed by lung cancer despite of continuous development in the treatment procedures. It is essential to measure the quality of life of the survivors to help in increasing the diagnosing rate, survival rate and to compare the various treatment procedures to control the risk factors of the disease. This could also help to improve the standard of living of survivors.

CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline patients consent and ethical approval has been collected and preserved by the authors.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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