



# The Effect of Smoking Habits on Different Histological Types of Lung Cancer in Kashmir

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## Abstract

A prospective study was conducted with the aim to determine the effect of smoking habits on different histological types of lung cancer. A total of 100 patients that included 91 males and 9 females with histological documentation of lung cancer were enrolled in the study. A detailed history was taken in each case that revealed active smokers 90%. Of which cigarette smokers were 40%, Hooka and Bidi smokers 17.7% and 5.6% of cases respectively. We also observed lung cancer was more common among farmers 34% who were active hooka smokers. Squamous cell carcinoma was the main histological type of lung cancer associated with all types of smoking habits.

## Key words

Smoking, lung cancer, squamous cell carcinoma

## Introduction

Lung cancer is the commonest cancer worldwide accounting for 18% of all cancers in men (1, 2). There are 2 – 2.5 million cancer cases present at any given point of time in India (3). Lung is the leading site of cancer in males as per the three urban cancer registries of India (4). The incidence of lung cancer is increasing rapidly, mainly due to progressive change in life style (5). It remains a major health problem in Kashmir valley and constitutes nearly 9.9% of all cancers (6). The epidemiology of lung cancer is dominated by its association with smoking. The dramatic increase in cancer death rates among men and the more recent increase among women can be attributed to increase in cigarette consumption (7). Lung cancer is responsible for about one million deaths per year at present and will rise to three million per year by the year 2010 (8). Smoking is a major risk factor for lung cancer with approximately 90% to 95% of new lung cancers resulting from active smoking (9). Tobacco exposure has been strongly associated with small cell lung cancer than any other type (1). The current study was undertaken to determine the risk of smoking habits on different histological types of lung cancer in Kashmiri population.

## Material and Methods

A total of 100 patients with the diagnosis of lung cancer were studied prospectively between January 2002 and June 2004 in the department of Radiation Oncology at SK. I. M. S. Srinagar, Kashmir. All patients had

histologically/cytologically proven cancer of the lung determined through bronchoscopy 83%, CT scan guided FNAC 10%. Five patients underwent thoracotomy and two patients had malignant cytology in pleural effusion. Besides routine history, a detailed history was taken in each case regarding smoking habits, that included duration of smoking, age at onset of smoking, no. of pack years smoked and the type of smoking. The occupational history and the association of chronic obstructive airway disease including pulmonary tuberculosis was also stressed upon in the history.

## Results

From January 2002 to June 2004, 100 patients with histologically proven lung cancer were enrolled in the study prospectively. There were 91 male and 9 female patients. Majority, 71% of patients were in the age group of 45 – 65 years. As per the occupational status, 52% were from agrarian community that included 34% farmers and 18% gardeners (Table 1). The history of active smoking was present in 90% and 10% were non-smokers but had definite history of house hold smoke exposure since their childhood/adolescence. Of the 90 active smokers, 40% were cigarette smokers. Hooka and Bidi smokers were 17.7% and 5.6% respectively. 36.7% had history of mixed smoking in the form of cigarette, Hooka and Bidi (Table 2). It is interesting to note that 45.6% of patients had started smoking below 20 years of age. Majority, 66.7% had smoked for 11-30 years and 20%

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