



INCIDENCE OF TYPES OF LUNG MALIGNANCY IN A TERTIARY CARE HOSPITAL IN A COASTAL REGION, AN OBSERVATIONAL STUDY

Vanitha Gnanasoundran¹, Thanigaivelan Dhandayuthapany² and Dhileepan Selvarajan³

^{1,2}Chest and TB Department, Vinayaka Missions Medical College (Vinayaka Missions Research Foundation –DU), Karaikal, India

Department of Medicine, Vinayaka Missions Medical College (Vinayaka Missions Research Foundation –DU), Karaikal, India

ARTICLE INFO

Article History:

Received 13th August, 2018

Received in revised form 11th September, 2018

Accepted 8th October, 2018

Published online 28th November, 2018

Key words:

Lung carcinoma, non smokers, coastal region

ABSTRACT

Background: Lung malignancy is one of the common malignancies associated with smoking occurring in the world, that too mostly in men. This is to study the prevalence of the type of lung malignancy and the common risk factor associated in this coastal region.

Materials and methods: Patients who were diagnosed with lung malignancy from the period of October 2015 to November 2018 by cytology and histopathological report in our hospital were included and analyzed.

Results: Among the 50 patients, 32 were males and 18 were females. Incidence of lung carcinoma was high among males and the incidence of most common type of carcinoma was squamous in males and adenocarcinoma in females. Non smokers were more affected than smokers.

Conclusion: The ratio of Incidence of lung malignancy in this coastal region is more in non smokers than smokers which is in changing trend, which has to be further evaluated.

Copyright©2018 Vanitha Gnanasoundran et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Among the major etiological factors, tobacco smoking remains the major one apart from other risk factors like coal smoke and occupational exposure to carcinogens which were demonstrated in countries like Asia and Africa¹.

It is estimated that by 2030, lung cancer will be the sixth most common cause of death, compared with its current position of ninth².

MATERIALS AND METHODS

Out of the 59 patients diagnosed with lung carcinoma, 8 patients were excluded since they were secondaries to the lung from elsewhere and one patient diagnosed with pleural malignancy was also excluded. So only 50 patients with primary lung carcinoma were included in the study.

RESULTS

Totally 59 patients were studied. Among them 36 were males and 23 were females, with the ratio of 2.56:1. After excluding the secondary carcinoma to the lung from elsewhere and pleural malignancy totally there were 50 primary lung carcinoma cases with the ratio of male: female of 1.77:1. Non smokers being 62% of the total primary lung cases.

*Corresponding author: **Vanitha Gnanasoundran**

Chest and TB Department, Vinayaka Missions Medical College (Vinayaka Missions Research Foundation –DU), Karaikal, India

CONCLUSION

Lung malignancy is divided into two broad types. One is small cell carcinoma constituting 15 % of total cases and the other type which constitutes the remaining 85% is the non small cell carcinoma which has three major pathologic subtypes namely adenocarcinoma, squamous cell carcinoma and large cell carcinoma accounting for 38.5%, 20% and 2.9% respectively³.

With increasing prevalence of smoking, lung cancer has reached epidemic proportions in India and now is the commonest malignancy in males in many hospitals. Apart from smoking, occupational exposure to carcinogens, indoor air pollution and dietary factors have recently been implicated in the causation of lung cancer. Squamous cell carcinoma is still the commonest histological type in India in contrast to the Western countries, although adenocarcinoma is becoming more common⁴.

Following table gives the type of carcinoma that occurred in the patients studied. It is consistent with the general statistics that squamous carcinoma is the common type in males and adenocarcinoma being common type in females.

| Type of carcinoma (HPE) | Male | Female |
|-------------------------|-------------|-----------|
| Small cell carcinoma | 2 (6.25%) | 1 (5.55%) |
| Squamous cell carcinoma | 14 (43.75%) | - |
| Adenocarcinoma | 10 (31.25%) | 9 (50%) |
| Large cell carcinoma | - | - |
| Others | - | - |

| | |
|------------------------|-----------|
| Schwannoma | 1(5.55%) |
| Neuroendocrine tumor | 1(5.55%) |
| Cytology proven (FNAC) | 6(18.75%) |
| | 6(33.33%) |

24% of total primary lung carcinoma patients were diagnosed by FNAC and hence typing could not be done. None of the patients were diagnosed in stage 1.60% of patients were diagnosed in stage 4 with metastasis

The WHO data says India will have 1.16 million new cancer cases this year and more than 50 per cent of these will be diagnosed in women.

Smokers and non-smokers now represent an equal number of lung cancer patients, according to a study carried out by the Lung Care Foundation, a not-for-profit organisation focused on improving lung health in India.

An analysis of 150 patients done at Sir Ganga Ram Hospital (SGRH), New Delhi, India found that nearly 50 percent of patients with lung carcinoma, the type of carcinoma causing the highest number of deaths nationwide, had never smoked, and yet had acquired the lung disease.

The increasing numbers of non-smokers having lung cancer, is another 'disturbing trend' that points to factors beyond smoking tobacco as being the primary risk factor.

In this study 62% of lung malignancy patients were non smokers. But the spouses of 55.55% females are smokers. Though some risk associated with second hand smoking can be attributed to this pattern, further study to find out the risk factors for the increasing trend in nonsmokers should be carried out apart from smoking which is the primary risk factor which cannot be attributed the above incidence pattern.

| Gender | Smokers (38%) | Non smokers (62%) |
|--------|---------------|-------------------|
| Male | 19 | 13 |
| Female | - | 18 |

Also there was no significant family history in the patients included for the study.

Since non smokers showed more incidence of lung carcinoma than smokers in this coastal region, suspicion of lung carcinoma should be kept as one of the differential diagnosis even when the nonsmokers present with respiratory symptoms and should be evaluated accordingly. Also, risk factors from coastal region like dietary habits, exposure to fuel vapor in the motor boats and etc should be evaluated. Awareness about lung malignancy should be created for early detection of cancer.

Acknowledgements

Funding: No funding sources

Conflict of interest: None declared

References

1. Ezzati M, Henley SJ, Lopez AD, Thun MJ, Role of smoking in global and regional cancer epidemiology: current patterns and data needs. *Int J Cancer*. 2005; 116:963-71.
2. Mathers CD, Loncar D. Projections of global mortality and burden of disease from 2002 to 2030. *PLoS Med*. 2006; 3:e442.
3. Howlader N, Noone AM, Krapcho M, *et al.*, editors. SEER Cancer Statistics Review, 1975–2008. Bethesda (MD): National Cancer Institute; 2010. Available at: http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.
4. Behera, Dushmantkumar & Balamugesh, Thangakunam. (2012). Lung cancer in India. *The Indian journal of chest diseases & allied sciences*. 46. 269-81

How to cite this article:

Vanitha Gnanasoundran *et al* (2018) 'Incidence of Types of Lung Malignancy In A Tertiary Care Hospital In A Coastal Region, An Observational Study', *International Journal of Current Advanced Research*, 07(11), pp. 16350-16351. DOI: <http://dx.doi.org/10.24327/ijcar.2018.16350.3019>
