



Original Article

Cytological Pattern of Bronchial Carcinoma in Male Patients Seen in Tertiary Care Hospital

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Abstract

This cross sectional descriptive study was conducted to assess cytological characteristics of bronchial carcinoma in 60 patients from various region of Rajshahi Division presenting with clinical features consisting with the diagnosis of lung carcinoma. They were admitted to Rajshahi Medical College Hospital from January 2013 to December 2013. Our observations reveals that the most prevalent malignancy among these patients was non small cell lung carcinoma including squamous cell carcinoma and large cell carcinoma in males patients. The common site of bronchial carcinoma in the upper lobe of lung. The proper treatment of bronchial carcinoma depends on the cytological pattern of bronchial carcinoma.

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Introduction

According to a published report by WHO in 2005, lung cancer was the most common malignancy (age standardized incidence being 20 per 100000) and the leading cause of cancer deaths among Bangladeshi men with the annual incidence and mortality rate being 28.39 % and was the highest among all cancers occurring in Bangladesh¹. Bronchial carcinoma was considered to be a rare disease at the beginning of the 20th century² but has now reached almost epidemic proportion. Cancer of lung is the most common organ malignancy and is one of the most prevalent cause of cancer- related deaths worldwide^{2,3} with approximately 1.2 million deaths occurring annually^{4,5}. Among adults (age > 18 years both

sexes combined) lung cancer was the fifth most common malignancy and the third most common cancer among males⁶.

In this study, the cytological characteristics of lung cancer as reported in a tertiary care hospital of Rajshahi were analyzed in terms of morphological types. Bronchial carcinoma may be raised due to an increase in the smoking habit and also in exposure to other carcinogens.

Materials and Methods

Patients :

This study was a cross sectional descriptive study comprising a total of 60 patients from various regions of Rajshahi Divisions with bronchial carcinoma at Rajshahi Medical College Hospital,

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Rajshahi from January, 2013 to December 2013. Relevant clinical and laboratory data of these patients were recorded in separate proformas.

Gross location of lung malignancies in 60 patients

	Upper lobe		Lower lobe		Middle lobe		Total (RT lung- 56.66%)
	L	R	L	R	L	R	
Squamous cell carcinoma	04	05	03	03	03	04	
Adeno carcinoma	01	03	00	02	00	02	
Large cell carcinoma	01	03	02	04	02	02	
Small cell carcinoma	02	01	00	00	00	00	
Undifferentiated Carcinoma	02	05	04	00	01	01	
	10	15	9	9	7	10	60

FNAC (Fine Needle Aspiration Cytology):

FNAC of several types conducted by CT guided and USG Guided. Location wise right lung was involved most commonly i-e in 56.66% are patients whereas the left lung was site of malignancy in 44.34% patients. However upper lobe was involved most commonly on both sides.

Discussion

The present study only assessed the cytological pattern of lung carcinoma. The most prevalent lung carcinoma in males was non small cell carcinoma including squamous carcinoma⁷. Squamous cell carcinoma followed by large cell carcinoma were observed in this study, in comparison to Chandrashekar's study, the most histological type was squamous- cell carcinoma (51.5%), followed by small cell carcinoma (17.6%) and adenocarcinoma (8.1%)⁷. The major symptoms were cough and/ or expectoration 83%, dyspnoea (69%), haemoptysis (49%) and chest pain (90%). These were clinicopathological features of lung carcinoma are in accordance with reports from other studies conducted in tertiary care hospital settings.

The most common cytological type was squamous cell carcinoma (38.33%), followed by large cell carcinoma (23.33%), undifferentiated carcinoma (18.33%), adenocarcinoma (15%) and small cell carcinoma (5%). Similarly according to Pathak, patterns of lung cancer in India varies from the

western population. The data from lung cancer clinic of a tertiary care hospital between 1999 and 2001 revealed that for 403 cases of lung cancer, peak incidence was in the age range of 51-60 years (mean 56.27 years). Overall male to female ratio was approximately 10:1⁸. Among them 88% were smokers of which 91 percent were males and 50% females. Non small cell lung cancer constituted 80%; whereas small cell lung cancer was seen in 20%. Squamous cell carcinoma was reported to be the commonest variety (33.16%) in India as compared to adenocarcinoma in the west. The disease tends to occur early (the peak incidence was at 51-60 years)^{9,10}.

In this study we found that squamous cell carcinoma 38.33 %, large cell carcinoma 23.33%, Undifferentiated carcinoma 18.33%, adenocarcinoma 15% and non small cell carcinoma 05%. So squamous cell carcinoma (38.33 %) is the most common bronchial carcinoma. In comparison to Nadia Naseem's study in Pakistan showing that squamous cell and non small cell carcinomas were the most common pulmonary malignancies. Cytological diagnosis of lung cancer is necessary for proper treatment.

Cytological Patterfn of Bronchial Carcinoma

Squamous cell carcinoma	Adeno carcinoma	Large cell carcinoma	Small cell carcinoma	Un-differentiated carcinoma
No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
23 (38.33%)	9 (15%)	14 (23.33%)	3 (5%)	11 (18.33%)

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