

## Bronchogenic Carcinoma at an Unusual Age

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### Summary:

*A cycle van puller chain cigarette smoker young male patient of 27 years old presented with cough, pain in the left upper chest and pain in the distal forearms. There was no fever or haemoptysis. Physical examination revealed clubbing, enlarged left supraclavicular lymphnodes and features of consolidation in the left upper chest. Chest x-ray showed*

### Introduction:

Lung cancer is the most frequent cause of death from cancer in the world with more than nine lac new cases each year<sup>1</sup>. In the United States, it represents 25% of all cancer related death and 5% of all causes of death<sup>2</sup>. Lung cancer occurs in 6<sup>th</sup> to 8<sup>th</sup> decades of life. In recent years an increase in incidence of lung cancer has been observed both in men and women<sup>3,4</sup>. The death rate from lung cancer exceeds the combined death from breast, colon and prostate cancer<sup>5</sup>. Lung cancer under age 30 years is rare with only 0.07% in the Metropolitan Detroit SEER study in USA. Young patients under 40 years of age with lung cancer more often have adenocarcinoma, present with advanced disease and have worse prognosis<sup>6</sup>. An Indian study revealed 9-14% bronchogenic carcinoma occurring at or below age of 40 years<sup>7</sup>. This patient presented with metastatic adenocarcinoma at the age of 27 years only. Rarerity of the condition leads us to report the case.

### Case Report:

A cycle van puller male patient of 27 years old hailing from Jhenidha was admitted in February 2010, in a private hospital in Khulna city and presented with non-productive cough for three months, pain in the left upper chest and in the distal part of both forearms for one month. There was no fever or haemoptysis. He was

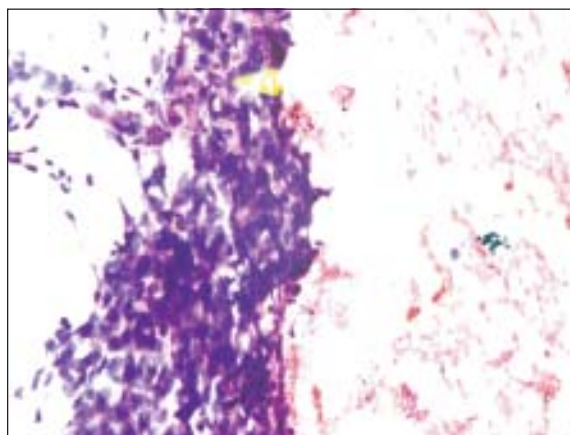
*dense opacity in the left upper and mid zone. Fine needle aspiration cytology (FNAC) from the left supraclavicular lymph nodes gave the comment of metastatic adenocarcinoma. With these findings the case was diagnosed as metastatic adenocarcinoma from left lung in early age.*

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cigarette smoker taking 15-20 sticks per day for about thirteen years.

Physical examination revealed clubbing of the digits. The distal forearms were tender. There was palpable lymph nodes in the left supraclavicular region. Examination of the chest revealed features of consolidation in the upper part of the left side.

Complete blood count and blood sugar was normal. There was no acid fast bacilli or malignant cells in the sputum. Chest x-ray posterior anterior view showed round dense opacity of about 5cm x 5cm in the upper and mid zone of left lung field with irregular outline merged medially with the mediastinum (Fig-I). X-ray of the distal forearms revealed no subperiosteal new bone formation. Fine needle aspiration cytology (FNAC) from the left supraclavicular lymph nodes revealed metastatic adenocarcinoma (Fig-II). So the patient was diagnosed as a case of adenocarcinoma of the left lung with metastasis to the left supraclavicular lymph nodes. With supportive and palliative care the patient died after 10 months of diagnosis.



**Fig-1:** FNAC features of Metastatic Adenocarcinoma.

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**Fig.-2:** X-ray chest PA view showing round dense opacity in the upper and mid zone of left lung field.

#### Discussion:

The reported patient is very young. He presented with metastatic adenocarcinoma of lung at 27 years of age. This patient died after 10 months of diagnosis.

One study revealed that lung cancer in young patient is increasing in frequency with more aggressive clinical course than in the elderly<sup>8</sup>. This study also conclude that younger patients have more rapid spread of disease and present with advanced disease having less chance for curative surgery. Adenocarcinoma is the most common histological type accounting for 46% of cases.

Many studies from USA, Taiwan, Canada, Germany, Japan and Malaysia have reported that adenocarcinoma is the leading histological type of lung cancer in young patient<sup>6</sup>.

One case report describes the 25 years old patient presented with squamous cell type of lung cancer during her third pregnancy. The patient developed progressive worsening of her general condition leading to death<sup>9</sup>.

The patient was heavy smoker. There are reports of an increase in the incidence of bronchogenic carcinoma in patients below 40 years of age. This rise may be due to an increase in the cigarette smoking habit<sup>10</sup>.

More study is required to find out the aetiology of lung cancer occurring in early age and why adenocarcinoma has been found in smoker.

#### Conclusion:

There are few reports of lung cancer occurring below the age of 30 years. Different studies observed different aspects of lung cancer such as genetics, cigarette smoking, environmental carcinogen, gender, histological cell type, stage and aggressiveness of the disease. Smoking is a risk factor for lung cancer in all ages. We must be careful not to miss the diagnosis of lung cancer in young patient.

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