Lung Cancer Presentations and Sites In Fiberoptic Bronchoscopy

Thesis

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List of Abbreviations

Abb.	Full term
ABG	*Arterial blood gases*
ACTH	*Adenocorticotropic hormona*
AFI	*Autofloresnce imaging*
BAL	*Bronchoalveolar lavage*
BL	*Bronchial lavage*
CIS	*Carcinoma in situ*
COPD	*Chronic obstructive pulmonary disease*
CT	*Computerized tomography*
CXR	*Chest x ray*
DM	*Diabetes mellitus*
DNA	*Deoxyribo nucleic acid*
EBUS	*Endobronchial ultrasound*
ECG	*Electro cardio gram*
EGFR	*Epidermal growth factor receptor*
EML4-ALK	*Echinoderm microtubule–associated protein-like 4–anaplastic lymphoma kinase*
FOB	*Fiber optic bronchoscope*
Her2	*Human Epidermal Growth Factor Receptor 2*
HOA	*Hypertrophy osteoarthropathy*
LEMS	*Lambart eaton myasthenia syndrome*
LIFE	*Light imaging fluorescent endoscopy*
LMB	*Left main bronchus*
Mabs	*Mono clonal antibodies*
MRI	*Magnetic resonance imaging*
NBI	*Narrow band inmaging*
NBTE	*Non bacterial thrombotic endocarditis*
NSCLC	*Non small cell lung cancer*
PET	*positron emission tomography*
RMB	*Right main bronchus*
RPT	*Randomized population trial*
RULB	*Right upper lobe bronchus*
SAFE	*System of auto fluorescence endoscopy*
SCC	*Squamous cell carcinoma*

List of Abbreviations cont…

Abb.	Full term
SCLC	*Small cell lung cancer*
SD	*Standard deviation*
SIADH	*Syndrome of inappropriate antidiuretic hormone*
SVGO	*Superior vena cava obstruction*
TB	*Tuberculosis*
TSG	*Tumor suppressor gene*
US	*Ultra sound*
VATS	Video-assisted thoracoscopic surgery
WHO	*World health organization*
WLB	*White light bronchoscope*

Abstract

All the patients that diagnosed as non bronchogenic carcinoma was excluded from the study.

In addition to that the most affected site bronchoscopically were the upper lobes RULB which was affected in seven patients 19.44 % of cases, while LULB was affected in six patients (16.67%) of cases while lingual was not detected to be affected in any case had been studied.

The most common presentation by FOB was endobronchial lesion 25 patients represented 69.44% of cases, luminal narrowing 4 patients 11.11%, extraluminal compression 2 patients 5.56%, mucosal infiltrations one patient 2.78% and finally Mucosal infiltration combined with Luminal narrowing four patients 11.11%.

Keywords: *Mono clonal antibodies - Left main bronchus- Bronchial lavage - Hypertrophy osteoarthropathy*

INTRODUCTION

Lung cancer as the most common cancer in the world represents a major public health problem. Worldwide it accounts for approximately 1.2 million cancer-related deaths each year. In men it is the largest cause of mortality, and in women it is the third largest cause, just after breast and intestinal cancer, but before cervical cancer. Good prevention and early detection of breast and cervical cancer mean that lung cancer will be the leading cause of mortality in women worldwide ***(Liang et al., 2009).***

Tobacco causes 80-90% of lung cancer cases ***(CR-UK CancerStats Monograph, 2004).*** It is often stated that tobacco control measures are likely to be the most important single tool in decreasing lung cancer mortality. Yet, however effective such measures are, we will continue to have large numbers of cases in smokers and ex-smokers for some time to come. Non-tobacco related lung cancer deaths are also significant, killing more people every year in the UK than cervical cancer and melanoma combined. Research is therefore still needed to improve the outcomes for all lung cancer patients.

Symptoms do not usually occur until the cancer is advanced, and may include persistent cough, sputum streaked with blood, chest pain, voice change, worsening shortness of breath, and recurrent pneumonia or bronchitis ***(Cancer Facts and Figures, 2015).***

Lung cancer is classified by its histologic appearance into small cell lung cancer (SCLC) or non–small cell lung cancer (NSCLC). NSCLC is divided into adenocarcinoma, squamous cell carcinoma, and large cell carcinoma; these are further subclassified ***(Travis et al., 2001).***

Flexible bronchoscopy is a well-established procedure in pulmonary medicine. It is considered an important tool in the diagnosis, staging, and the therapy of lung cancer and many other varieties of pulmonary diseases ***(Ouellette, 2006).***

It is a procedure that enables the physician or surgeon to examine the major air passages of the lungs. This allows the physician to evaluate the lungs and take small samples of tissue or fluid, if necessary. Usually the procedure is performed after mild sedation and numbness of the nose or mouth. The physician will then insert a bronchoscope, which is a flexible lighted tube about the width of a pencil, through the nose or mouth and into the windpipe. A small channel in the instrument allows tissue and fluid samples to be collected when appropriate ***(ACCP, 2004).***

More than 70% of lung carcinomas can be approached with FB and although the yield is dependent on operator's experience, a high level of diagnostic accuracy can be achieved by taking between three and five biopsy specimens and a combination of brushing, biopsy, and bronchial washes can

expect to establish a diagnosis in more than 60% of cases ***(Mazzone et al., 2002).***

When the tumor is visible but is intramural rather than endobronchial in distribution the diagnostic yield falls to 55% and is reduced further when the tumor lies beyond the bronchoscopist's vision ***(El-Bayoumi and Silvestri, 2008).***

Aim of the Work

The aim of the this work is to detect the predominant bronchoscopic presentations and anatomical locations in all histopathological patterns of lung cancer.

LUNG CANCER

Lung cancers was uncommon before the advent of cigarette smoking it was not even recognized as a distinct disease until 1761 ***(Herbst et al., 2008).***

Different aspects of lung cancer were described further in 1810 ***(Bayle Gaspand, 1810)***.

Malignant tumors made up only 1% of all cancers at autopsy in 1878, but have risen to 10-15% by early 1900s ***(Witschi, 2001)***. Case reports in the medical literature numbered only 374 worldwide in 1912 ***(Adler, 1912)***, but a review of autopsies showed the incidence of lung cancer had increased from 0.3% in 1852 to 5.66 in 1952 ***(Grannis, 2007).*** In Germany in 1929,physician Fritz Lickint recognized the link between smoking and lung cancer ***(Witschi, 2001)***, which led to an aggressive antismoking campaign ***(Proctor, 2000).***

British Doctors' Study published in the 1950s, was the first solid epidemiological evidence of the link between lung cancer and smoking ***(Doll and Hill, 1956).*** As a result, in 1964 the Surgeon General of the United States Lung Cancer: Risk factors, management, And Prognosis recommended smokers should stop smoking ***(US Department of Health Education and Welfare, 1964)***. The connection between radongases was first recognized among miners in the Ore Mountains near Schneeberg, Sxony. Silver has been mined there since 1470,