New Epidemiological Data of Lung Cancer in Iraqi People

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Abstract

Background: Lung cancer is the uncontrolled growth of abnormal cells in one or both lungs. Most cancers that start in the lung, known as primary lung cancers, are carcinomas.

Aim of study: To know the pattern of disease distribution in Missan province and reflect that overall cities of Iraq. To compare study results with nearby countries.

Methods: The study conducted in Missan province from October 2015 to April 2016. The study includes patients attended to Al-Shifaa Oncology Center in Missan province, Iraq. One hindered and nineteen patients overall 556 patients were included whom diagnosed as lung cancer cases. An epidemiological statistical study was done included overall prevalence, prevalence among age grouped, gender, relation of disease with tobacco smoking and histopathological types of lung cancer.

Results: The overall prevalence was 21.4 %. It was more in age groups 60-80 years as 50.42 % percentage among all other groups. It was more in male compared in female as ratio 4:1. The smoking patients were represent most population of lung cancer as 78.15 %.

Conclusion: The lung cancer is being one of the most cancers in patients attended to Al-Shifaa Oncology Center in Al-Amarah city, Missan province in Iraq. Cancer prevalence in Iraq is relatively high and trends are up going in terms of measure and variables related. The smoking patients were represent most population of lung cancer. Tobacco smoking is still the number one of the risk factors in etiology of lung cancer.

Keywords: *Lung cancer; Adenocarcinoma; Epidemiology; Smoking; Tobacco*

Introduction

Lung cancer, was a malignant lung tumor characterized by uncontrolled cell growth in tissues of the lung. This growth can spreading beyond the lung by the process of metastasis into nearby tissue or other parts of the body. Most cancers that start in the lung, known as primary lung cancers, are carcinomas [1]. The two main types are small-cell lung carcinoma (SCLC) and non-small-cell lung carcinoma (NSCLC). The most common symptoms are coughing (hemoptysis), weight loss, shortness of breath, and chest pains. The most (85%) of cases of lung cancer were due to long-term tobacco smoking. About 10–15% of cases occur in people who had never smoked [2]. These cases were often caused by a combination of genetic factors and exposure to radon gas, asbestos, second-hand smoke, and other forms

of air pollution. Lung cancer may be seen on chest radiography and computed tomography (CT) scans. The diagnosis was confirmed by biopsy which is usually performed by bronchoscopy and CT-guidance. Prevention done by avoiding risk factors including smoking and air pollution. Treatment and long-term outcomes depended on the type of cancer, the stage, and the person's overall health. Most cases are not curable [3]. Common treatments include surgery, chemotherapy, and radiotherapy. NSCLC was sometimes treated with surgery, because SCLC usually respond better to chemotherapy and radiotherapy. In 2012, lung cancer occurred in 1.8 million people and resulted in 1.6 million deaths. This made it the most common cause of cancer-related death in men and second most common in women after breast cancer [4]. The most common age at diagnosis is 70 years. Overall, 17.4% of people in the United States diagnosed with lung cancer survived five years after the diagnosis, while outcomes on average are worse in the developing world [1].

Materials and Methods

The areas of study includes Al-Shifaa Oncology Center in Missan province, Iraq. The period of conducted study was extended from October 2015 to April 2016. One hundred and nineteen patients overall 556 patients were attended to Al-Shifaa Oncology Center whom diagnosed as lung cancer cases. Determine the statistical significance among different tests variables version 14, was used. Chi-Square test and P value were used to compares between the epidemiological results [5].

Results and Discussion

1. Overall prevalence

The overall prevalence percent was 21.4 % as 119 from 556 patients attended to the Al-Shifaa Oncology Center, it was of significant when analyzed by X2 and P value.

Patients	No of patient attend to the Al-Shifaa Oncology Center	Percentage %
Patients with Lung cancer	119	21.4
Total patients	556	100
$X^2 = 15.59$, $P < 0.05$		

***Table 1:** The Overall prevalence of lung cancer.*

2. The prevalence among age groups

The most age groups which belong to 60-80 years as 50.42 %, it was of significant percent among other age groups as in table 2.

Age group (years)	No of patients	Percentage %
< 20	2	1.68
20-40	6	5.04
40-60	38	31.93
60-80	60	50.42
> 80	13	10.93
Total	119	100
$X^2 = 13.94$, $P < 0.05$		

***Table 2:** The percentage of lung cancer among age groups of the study.*

3. The prevalence by sex

The percentage of male patients was 79.83 %, the ratio was 4:1 in relation to female patient's percentage 20.16 %.

Sex	No of patients	Percentage %
Male	95	79.83
Female	24	20.16
Total	119	100
X^2 = 25.82, P < 0.05		

Table 3: *The relation between sex and lung cancer.*

4. The prevalence in relation with smoking

The most cases of lung cancer were smoking as 78.15%, table 4.

Smoking	No of patients	Percentage %
Yes	93	78.15
No	26	21.85
Total	119	100
X^2 = 10.86, P < 0.05		

Table 4: *The relation between lung cancer and smoking.*

5. The prevalence among lung cancer types histologically

Squamous cell carcinoma was the most histological type of lung cancer 63.02% from all types of lung cancer.

Histological types	No of patients	Percentage %
Adenocarcinoma	31	26.02
Squamous cell carcinoma	75	63.02
Small cell carcinoma	13	10.93
Total	119	100
X^2 = 13.72, P < 0.01		

Table 5: *The percentage of lung cancer among histopathology.*

The lung cancer is being one of the most cancers in patients attended to Al-Shifaa Oncology Center in Al-Amarah city, Missan province in Iraq, with overall prevalence 21.4%. It was most prominent in age groups 60-80 years as 50.42% percentage among all other groups. It was more in male compared in female as ratio 4:1. The smoking patients were represent most population of lung cancer as 78.15%. Tobacco smoking still the number one of the causes of lung cancer. Squamous cell carcinoma of lung was most type in the study as 63.02%. Primary carcinoma of the lung is a major health problem with a generally grim prognosis [6].

However, an orderly approach to diagnosis and management based on proper knowledge of the clinical behavior of the lung cancer combine with a critical review of lung cancer prevention and clinical treatment trials allow choice of the best steps in prevention and management [7]. This approach should be multidisciplinary, involving the interaction of chest physician, thoracic surgeon, radiation oncologist, pathologist, as well as the epidemiologist [8]. However, the several women who smoke was risen and deaths from lung cancer in women have increased. The entity of non-smoking-related NSCLC was becoming increasingly recognized [7].

Passive smoking, occupational exposures, pre-existing lung diseases, diet and oestrogen exposure had all been mooted as possible risk factors. Exposure to tobacco smoke was the number one reason people develop lung cancer [8]. The chance of developing lung cancer increases with the amount smoke and the number of years smoked [10].

More than 39,000 new cases of lung cancer are diagnosed in the UK each year [9-11]. More than 35,000 people die from the condition. This was more than colorectal and breast cancer combined. More women now die of lung cancer than breast cancer [12,13]. About 90% of lung cancers are caused by smoking. Now that fewer men smoke, lung cancer deaths in men were decreased by more than a quarter in the UK (a 27% reduction between 1971 and 2006) [14].

Acknowledgements

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