Prevalence of Lung Cancer in Al Najaf Governorate as Registered in the Middle Euphrates Oncology Center 2019 - 2020

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Abstract

Background: Lung cancer is a disease in which cells in the lung grow out of control and may spread to lymph nodes or other organs including the brain. Cancer from other organs may also spread to the lungs. The chance that a man will develop lung cancer in his lifetime is about 1 in 15; for a woman, the risk is about 1 in 17. These numbers include both, those who smoke and those who don't, but for those who smoke the risk is much higher. Worldwide, the prevalence of lung cancer has decreased during the past decade.

Objectives: To determine the prevalence of lung cancer in Al Najaf Governorate as registered in the Middle Euphrates Oncology Center (MEOC) during 2019 and 2020

Patients and Methods:
A registry-based cross-sectional study was conducted at the (MEOC) in Al Najaf city from October 2021 to February 2022. The target population was patients diagnosed with lung cancer and registered during the past two years (2019 and 2020. The data was collected from this center and from the Iraqi National Cancer Registry (INCR) annual reports. The student t- test and the Chi Square test were used, with a significance level of P < 0.05. The approvals of the committee of Arab Board of Health Specializations and Al Najaf Directorate of Health were obtained.

Results: A total of 183 cases were registered during the study period, 98 (53.6%) in 2019 and 85 (46.4%) in 2020. Fifty-nine (32.2%) patients were between 60-69 years of age and another 59 (32.2%) between 70-79 years. There were 125 (68.3%) males, 58 (31.7%) females, 138 (75.4%) smokers, and 59 (32.2%) were overweight. Ninety-eight patients (53.6%) had right lung CA, 103 (56.3%) patients had squamous cell carcinoma (SCC), 43 (23.5%) had adenocarcinoma, and 32 (17.5%) had small cell CA. Cancer metastasis was found in 108 (59%) patients. Bone metastasis was diagnosed in 35 (19.1%) patients and liver metastasis in 30 (16.4%) patients. The prevalence of lung CA in 2019 was $6.5/10^5$ ($8.72/10^5$ in males and $4.25/10^5$ in females). During 2020, there were 59 males and 26 females diagnosed with lung cancer, with a prevalence of $5.5/10^5$ ($6.7/10^5$ in males and $3.4/10^5$ in females). Small cell CA was significantly associated with patients aged 60-69 years, smokers, diagnosis with biopsy, metastasis to the supraclavicular lymph nodes and to the liver.

Conclusions: In Al Najaf, the prevalence of lung CA in 2019 was higher than that in 2020 with a male predominance, and metastasis in more than half of the patients, most common in the bones and liver. The most common types of cancer were squamous Cell CA, adenocarcinoma, and small cell CA.

Keywords: Lung Cancer, Small Cell Carcinoma, Squamous Cell Carcinoma, Najaf, Iraq.

Introduction:

Lung cancer, also known as bronchogenic carcinoma is one of the major incident malignancies and it is the leading cause of cancer-related death in the world (1). It is considered the most common malignant tumor in men and the second most common in women (after breast cancer). It is estimated that about 10 million new cases of lung cancer are diagnosed annually around the world (2). In Iraq, lung cancer is also the most commonly diagnosed cancer in males (16.7%) and is the fifth in Iraqi women (4.2%) according to the national survey that covered the period of 1995-2015 (3,4). The risk of having cancer proved to be proportional to the number of cigarettes smoked, the duration, and the tar content of each cigarette. The relative risk of lung cancer development is found to increase with active smoking by about 12-folds and about 1.5-folds with long-term continuous passive exposure to cigarette smoke. Thus, primary prevention of lung cancer should mainly but "not exclusively" target the prevention and/ or cessation of smoking. (5, 6) The common types of lung cancer are squamous cell carcinoma (35%), adenocarcinoma (30%), small cell carcinoma (20%), and large cell carcinoma (15%). These histological types have an important role in the clinical presentation of the patient, prognosis of the cancer, and subsequently response to the treatment regime (7,8). Lung cancer spreads through both lymphatics and bloodstream, the metastases being the cause of the negative effects of this disease (9). TNM cancer staging system, in which

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T1–T4 stands for the primary tumor spreading (increase in tumor size / or invasion to the surrounding tissue), N0–N3 stands for the dissemination to the regional lymph nodes, and an M0–M1 are related to absence or presence of distant metastases (10, 11). The overall prognosis is usually very poor and around 80% of patients are deceased within the first year of diagnosis, with less than 5% surviving 5 years after the date of the confirmed diagnosis. It is useful to explore the frequency of various histological types of the lung cancer in addition to the invasion of the tumor cells of different histological subtypes to nearby tissues and organs (12, 13). Al Najaf city is located about (160 km) south of Baghdad, the capital of Iraq, west to the Euphrates River, with a population (2009 estimation) of 1.2 million. Iraq went through decades of wars and destruction which caused a marked damage to the health care sectors, infrastructure and services (14, 15). The prevalence of risk factors of some cancer (obesity, smoking, physical inactivity and unhealthy diet) had recently increased in Iraq with no preventive programs being implemented. Iraq had witnessed increasing incidence rates of breast, bladder, and lung cancers, among others. Accurate quantitative monitoring of the cancer trend burden gives policymakers, stakeholders and health managers the chance to prioritize diseases and allocate health resources accordingly (16). This can contribute to changes in the cancer prevalence rates, promoted by the implementation of disease control programs. (17-21) The objective of this study is to shed some light on the prevalence of lung cancer in Al-Najaf during the years 2019-2020

Patients and Methods:
This registry-based cross-sectional study was conducted at (MEOC) in Al Najaf city from October 2021 to February 2022. The target population were patients diagnosed with lung cancer, referred to the (MEOC) in Al Najaf city with registered information for the past two years (2019 and 2020). Reports about diagnostic measures and tumor features were available, with complete information about patients. Cases with any missing information in patients' records were excluded from the study. The source of data was the documented saved records of the recruited patients in this center. The data was collected using a data collection form filled by the researcher. The aims, contents and other aspects of the study were explained to each provider in the center and administrative staff to avoid any misunderstanding while collecting data. We extracted the data of the 183 patients with lung cancer for the period of 2019 - 2020 from the (MEOC) in Al Najaf city and from the Iraqi National Cancer Registry

(INCR) annual reports published by the Iraqi Ministry of Health/ Iraqi Cancer Board that are freely available to the public through its website. The data collection form covered demographic features (Age, gender, residency, smoking, BMI) and information about the tumor (location, diagnostic method, histological finding (grades, stages), and metastatic sites). The following classification was used: G1: Well differentiated, G2: Moderately differentiated, G3: Poorly differentiated, G4: Undifferentiated. The tumor stage was classified from I - IV, the lower the stage number, the less the cancer has spread. Microsoft Excel 2010 and IBM SPSS version 24 were used for data entry, management, and analysis. Descriptive statistics of the variables were expressed as percentages and Mean ± SD; The Chi Square test was used to test for associations between variables, and the student t-test was used to test for differences between means, with a P value at < 0.05 considered to be significant. The approvals of the committee of Arab Board of Medical Specializations and of Al Najaf Directorate of Health were obtained prior to the start of the study. The administration of the (MEOC) in Al Najaf city was informed about the nature and scope of the study and a verbal consent was obtained. Data was kept confidential, being accessed only for the study purposes.

Results:
Out of the total of 183 patients with lung CA, there were 125 (68.3%) males with a mean age of 64.1 ± 10.67 years, and 58 (31.7%) females with a mean age of 68.7 ± 11.77 years, with a significant difference between the two means (P=0.013). The mean BMI of males was 23.7 ± 4.51, significantly lower than that of females 25.4 ± 5.65 (P=0.046), Table 1.

Table 1: Mean age and mean BMI of patients with lung CA

Variable	Gender	N (%)	Mean	SD	P
Age/ years	Male	125 (68.3)	64.1	10.67	0.013
	Female	58 (31.7)	68.7	11.77	
BMI	Male	125 (68.3)	23.7	4.51	0.046
	Female	58 (31.7)	25.4	5.65	

Figure 1 shows the demographic features of the patients. In 2019, there were 98 (53.6%) patients diagnosed with lung CA, compared to 85 (46.4%) in 2020. Fifty-nine (32.2%) patients were between 60-69 years of age, another 59 (32.2%) were between 70-79 years, and 37 (20.2%) were between 50-59 years. Urban residents were 122 (66.7%), 138 (75.4%) were smokers, 81 (44.3%) were with normal body weight, and 59 (32.2%) were overweight.
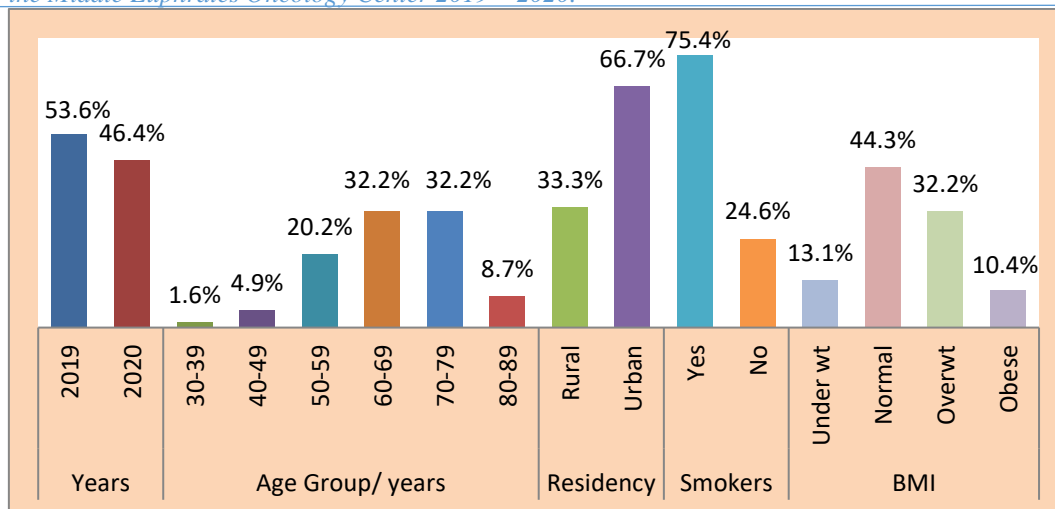
Figure 1: Demographic features of the patients with lung CA:

Figure 2 displays the tumor features in the study group. Ninety-eight (53.6%) patients were diagnosed with right lung CA, and 73 (39.9%) had left lung CA. A hundred and thirty patients (71%) were diagnosed by biopsy (thoracotomy, CT guided Tru-cut biopsy), and 53 (29%) patients were diagnosed by aspiration (pleural fluid or FNAC). A hundred and three patients (56.3%) were found to have diagnosed with SCC, 43 (23.5%) with adenocarcinoma, 32 (17.5%) with small cell CA and 5 (2.60%) with other types (large cell carcinoma, adeno-squamous carcinoma, or classic carcinoid). A hundred and eight (59%) patients were diagnosed as Grade 2 and 60 (32.8%) as Grade 3. As for staging, 108 (59%) patients were classified as stage 4, and 39 (21.3%) as stage 1. Cancer metastasis was found in 108 (59%) patients, with bone metastasis in 35 (19.1%) patients, liver metastasis in 30 (16.4%), contralateral lung in 20 (10.9%), brain in 18 (9.8%), pleura leading to malignant pleural effusion in 12 (6.6%), supraclavicular lymph nodes (LN) in 11 (6.0%), cervical or mediastinal LN in 9 (4.9%), the adrenal gland in 5 (2.7%), and the spinal cord/spine in 2 (1.1%). Figure 2.
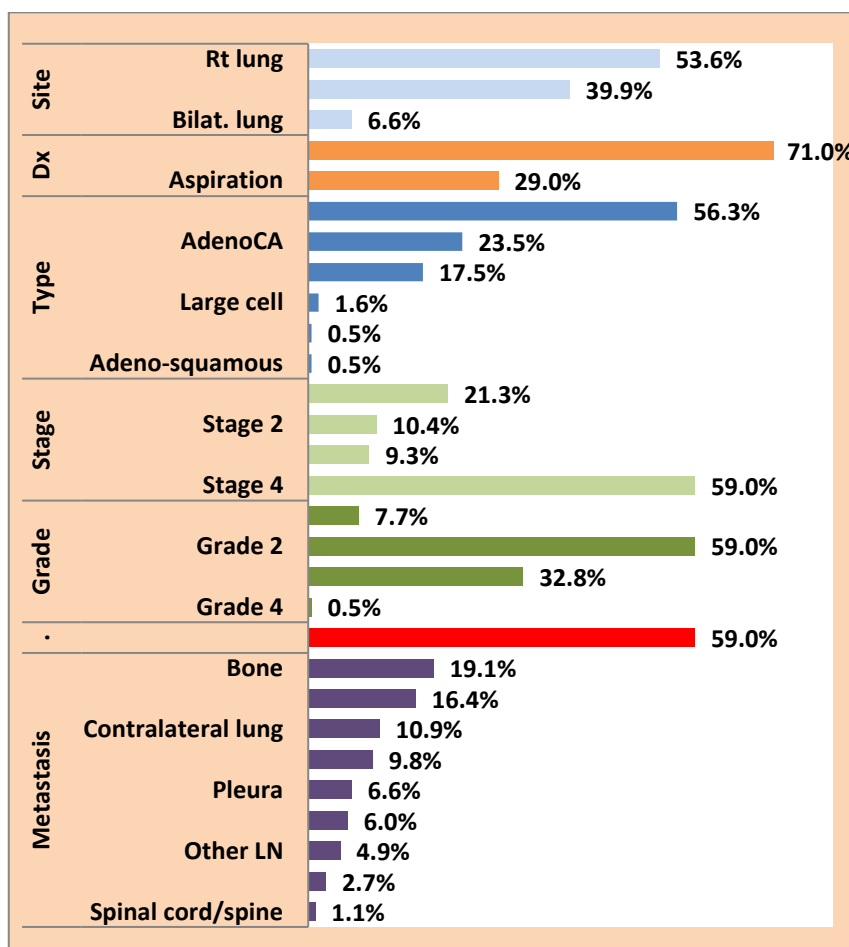

Figure 2: Tumor features among patients with lung CA

Figure 3 shows the distribution of the population of Al Najaf by gender for the years 2019 and 2020. Figure 4 shows the prevalence of lung cancer in Al Najaf per 100000 population by gender and year. Out of the 98 cases diagnosed in 2019, there were 66 males and 32 females. The overall prevalence of lung CA was 6.5 / 100000, 8.72 / 100000 among males and 4.25 / 100000 among females. Out of the 85 cases diagnosed in 2020, 59 were males and 26 were females. The overall prevalence of lung CA was 5.5 / 100000, 6.7/ 100000 among males and 3.4 / 100000 among females.
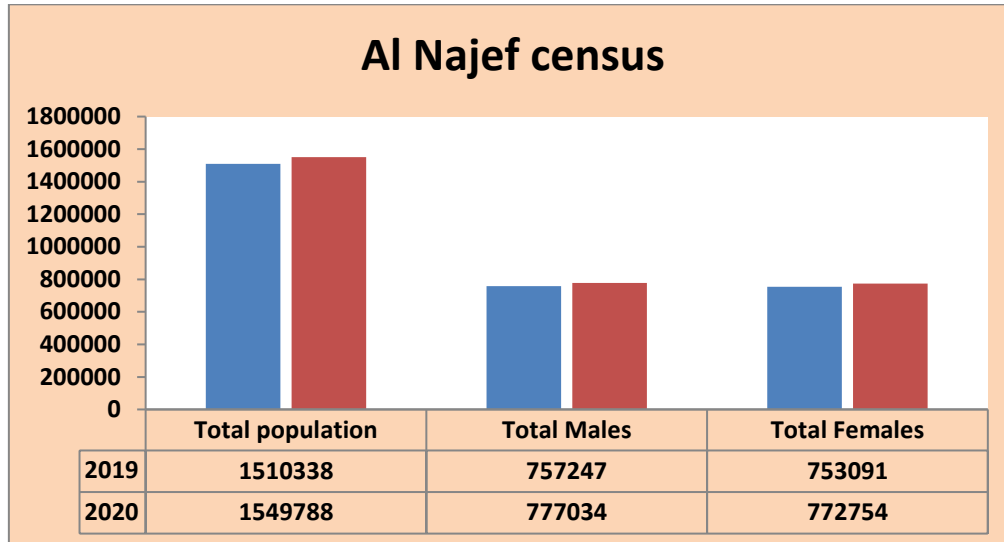

Figure 3: Population distribution in Al Najaf by gender during 2019 and 2020
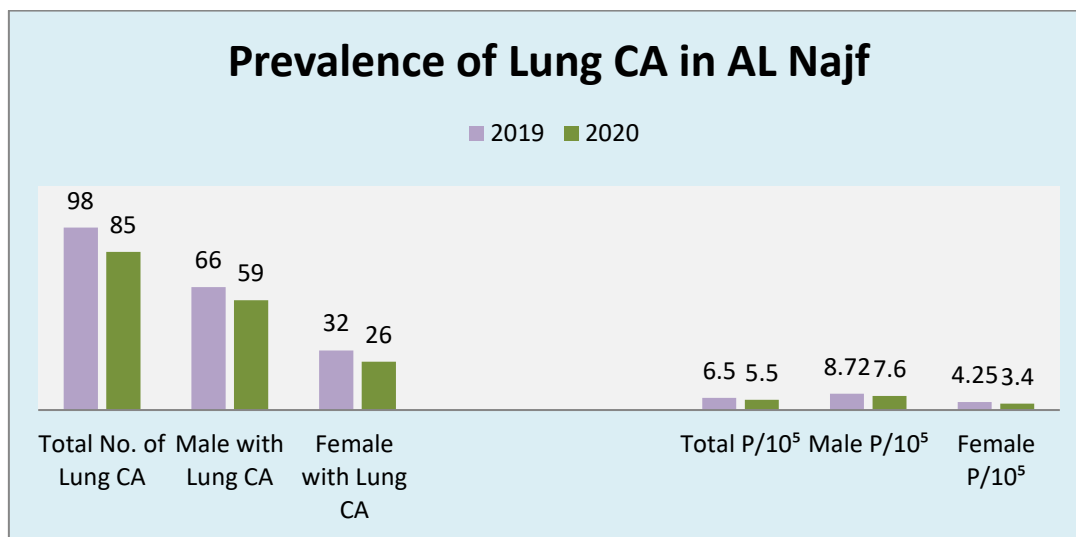

Figure 4: Prevalence of lung CA per 100000 population in Al Najaf, 2019 and 2020

As for the typing of CA, small cell CA was significantly associated with patients aged 60-69 years and with smoking history, $P<0.05$ and $P<0.001$ respectively, table 2.

Table 2: Distribution of CA types according to the demographic features of patients

Variables and Categories		Type of CA / column%								P
		Squamous cell carcinoma		Adenocarcinoma		Small cell carcinoma		Others		
		N	%	N	%	N	%	N	%	
Age Group	30-39	0	0	2	4.7	0	0	1	20.0	0.018
	40-49	6	5.8	1	2.3	1	3.1	1	20.0	
	50-59	15	14.6	13	30.2	8	25.0	1	20.0	
	60-69	33	32.0	11	25.6	14	43.8	1	20.0	
	70-79	40	38.8	12	27.9	6	18.8	1	20.0	
	80-89	9	8.7	4	9.3	3	9.4	0	0	
Gender	Male	70	68.0	27	62.8	24	75.0	4	80.0	0.66

	Female	33	32.0	16	37.2	8	25.0	1	20.0	
Residency	Rural	37	35.9	12	27.9	11	34.4	1	20.0	0.73
	Urban	66	64.1	31	72.1	21	65.6	4	80.0	
Smoking history	Yes	94	91.3	8	18.6	32	100	4	80.0	<0.001
	No	9	8.7	35	81.4	0	0	1	20.0	
BMI	Under weight	15	14.6	2	4.7	7	21.9	0	0	
	Normal weight	42	40.8	18	41.9	19	59.4	2	40.0	0.06
	Overweight	32	31.1	20	46.5	5	15.6	2	40.0	
	Obese	14	13.6	3	7.0	1	3.1	1	20.0	

The distribution of CA types according to tumor features is shown in table 3. Of all those with squamous cell carcinoma, 55.3% were located in the right lung, 67.0% were diagnosed by biopsy, 57.3% were metastatic (6.8% to the brain and 3.9% to the pleura) with no significant associations. Of the cases with adenocarcinoma (58.1%) were located in the right lung, 62.8% were diagnosed by biopsy, 58.1% were metastatic (14% to the brain and 14% to the pleura) with no significant association (P>0.05). Of the cases with small cell carcinoma 59.4% were located in the left lung, 93.8% were diagnosed by biopsy, 68.8% were metastatic (18.8% to the supraclavicular LN, and 34.4% to the liver) (P=0.015, P=0.001, and P=0.01) respectively. Of the other CA type (large cell carcinoma, adeno-squamous carcinoma, and classic carcinoid), 80% were located in the right lung, 80% were diagnosed with biopsy, 40% were metastatic (20% to the brain and 20% to the supraclavicular LN) with no significant association (P>0.05).

Table 3: Distribution of CA types according to tumor features among patients

Variables and Categories		Squamous cell carcinoma		Adenocarcinoma		Small cell carcinoma		Others		P
		N	%	N	%	N	%	N	%	
Tumor location	Right lung	57	55.3	25	58.1	12	37.5	4	80.0	
	Left lung	39	37.9	14	32.6	19	59.4	1	20.0	0.23
	Bilateral lung	7	6.8	4	9.3	1	3.1	0	0	
Diagnostic method	Biopsy	69	67.0	27	62.8	30	93.8	4	80.0	0.015
	Aspiration	34	33.0	16	37.2	2	6.3	1	20.0	
Metastasized	Yes	59	57.3	25	58.1	22	68.8	2	40.0	0.54
	No	44	42.7	18	41.9	10	31.3	3	60.0	
Supraclavicular LN	Yes	1	1.0	3	7.0	6	18.8	1	20.0	0.001
	No	102	99.0	40	93.0	26	81.3	4	80.0	
Adrenal gland	Yes	2	1.9	2	4.7	1	3.1	0	0	0.8
	No	101	98.1	41	95.3	31	96.9	5	100	
Bone	Yes	24	23.3	4	9.3	7	21.9	0	0	0.16
	No	79	76.7	39	90.7	25	78.1	5	100	
Brain	Yes	7	6.8	6	14.0	4	12.5	1	20.0	0.44
	No	96	93.2	37	86.0	28	87.5	4	80.0	
Liver	Yes	16	15.5	3	7.0	11	34.4	0	0	0.01
	No	87	84.5	40	93.0	21	65.6	5	100	
Contralateral lung	Yes	15	14.6	4	9.3	1	3.1	0	0	0.25
	No	88	85.4	39	90.7	31	96.9	5	100	
Pleural effusion	Yes	4	3.9	6	14.0	2	6.3	0	0	0.15
	No	99	96.1	37	86.0	30	93.8	5	100	
Other LN	Yes	8	7.8	1	2.3	0	0	0	0	0.23
	No	95	92.2	42	97.7	32	100	5	100	
Spinal cord/spine	Yes	2	1.9	0	0	0	0	0	0	0.67
	No	101	98.1	43	100	32	100	5	100	

Comparison between the two years shows that there was a significant difference with tumor location (P=0.03), but with no significant associations with other variables (P>0.05), Table 4.

Table 4: Distribution of lung CA patients according to the years 2019 & 2020

Variables and Categories		Years				P
		2019		2020		
		N	%	N	%	
Age Group	30-39	1	1.0	2	2.4	0.3
	40-49	8	8.2	1	1.2	
	50-59	19	19.4	18	21.2	
	60-69	30	30.6	29	34.1	
	70-79	30	30.6	29	34.1	
	80-89	10	10.2	6	7.1	
Residency	Rural	30	30.6	31	36.5	0.4
	Urban	68	69.4	54	63.5	
Smoking history	Yes	73	74.5	65	76.5	0.76
	No	25	25.5	20	23.5	
BMI	Under weight	14	14.3	10	11.8	0.23
	Normal weight	37	37.8	44	51.8	
	Over weight	34	34.7	25	29.4	
	Obese	13	13.3	6	7.1	
Tumor location	Right lung	55	56.1	43	50.6	0.03
	Left lung	41	41.8	32	37.6	
	Bilateral lung	2	2.0	10	11.8	
Final diagnosis	Squamous cell carcinoma	51	52.0	52	61.2	0.6
	Adeno carcinoma	26	26.5	17	20.0	
	Small cell carcinoma	18	18.4	14	16.5	
	Others	3	3.1	2	2.4	
Metastasized	Yes	58	59.2	50	58.8	0.96
Supraclavicular LN	Yes	6	6.1	5	5.9	0.9
Adrenal gland	Yes	3	3.1	2	2.4	0.8
Bone	Yes	15	15.3	20	23.5	0.16
Brain	Yes	9	9.2	9	10.6	0.7
Liver	Yes	19	19.4	11	12.9	0.24
Contralateral lung	Yes	13	13.3	7	8.2	0.28
Pleural	Yes	6	6.1	6	7.1	0.8
Other LN	Yes	2	2.0	7	8.2	0.053
Spinal cord/spine	Yes	1	1.0	1	1.2	0.9

Discussion:

The burden of lung cancer is caused by its high mortality rate and being a high ranking cancer related mortality in men and women respectively. This is more profound in low/ middle income countries, added to its financial burden as the estimated per patient cost can reach 15 000 US$. (22) Recent scientific articles have shown a change in the epidemiological features of lung cancer in Iraq in consistence with international observations (23, 24). The age, gender, residence, smoking and weight features in our study are somewhat in agreement with a case control study conducted in Babylon/Iraq, 2019.

The study was done in the oncology center in Hilla city which receives all lung cancer patients in the governorate. It revealed that men, 60 years and above, rural residents and smoking were the main findings regarding lung cancer risk factors in the city (25). Torre et al and Kim et al reported that lung cancer rates varied by sex, age, socioeconomic status, and geographic distribution in addition to the differences in smoking patterns. Lung cancer rates in the United States were also higher among males, lower socioeconomic status, and rural areas Although these rates are decreasing in many countries like United States, Australia, and United Kingdom, especially in men, they are increasing in other countries where smoking is still a common habit. Nevertheless, low- and middle-income countries account for more than 50% of lung cancer cases and mortality each year. It is observed that incidence of bronchogenic carcinomas in the elderly continues to increase, as older age may itself be an important risk and prognostic factor due to certain physiologic changes that accompany the aging process, in addition to the presence of a variety of comorbidities, and toxicities/side effects associated with the medications for other chronic illnesses. (26, 27) Regarding BMI, to date, and according to the meta-analysis by Yang et al, (28) the relationship between obesity and the increasing incidence of lung cancer remains vague and inconclusive. Generally, excess body weight (BMI $\geq$ 25 kg/m^2) was observed to be inversely associated with lung cancer incidence compared with the normal body weight (BMI = 18.5-24.9 kg/m^2) which is consistent with our findings. The results of the above meta-analysis revealed that obesity and overweight were protective factors against the establishment of this cancer, especially in patient with a history of current and past smoking. Interestingly, low BMI was found to be associated with poor prognostic outcome, particularly in underweight cancer patients. (29) This study found that the overall prevalence of lung CA was 6.5 / 100,000 and 5.5/100000 in 2019 and 2020 respectively, with no significant difference in tumor or patient variables between the two years. This decrease cannot be explained by improving methods of case detection only or registration of data as our health system is still suffering from various limitations especially in the infrastructure and data registration. This is in agreement with the results of Salim et al who reported the increasing prevalence rate of lung cancer from: 4.08 in 2000, to 4.31 in 2008, and 5.60 in 2016. Nevertheless, it is lower than the rates of many neighboring countries. The prevalence rate in Arab countries in 2016 was 16.33/100 000. (30) The detection of histopathological type of the primary lung cancer is vital to determine the appropriate treatment approach that can have an impact on morbidity and mortality. The current study revealed that more than half of the patients diagnosed with right lung CA were SCC followed by adenocarcinoma, and small cell CA respectively. Grade 2 / stage 4 patients accounted for (59%) of the total. Metastasis was mainly to brain

(adenocarcinoma, SCC), lymph nodes (Small cell carcinoma), bone, liver, and contralateral lung (large cell and other types). The histological type was significantly associated with smoking history, gender, and older age. This is not in consistence with the results Kim et al who reported that patients were usually asymptomatic and that the most frequent histological type was adenocarcinoma, followed by SCC and the least histological subtype was small cell lung cancer. SCC was the major subtype in male patients, while adenocarcinoma was the most frequent in female patients (31). In the USA, Pinsky et al reported that adenocarcinoma comprised about 30% of lung cancer deaths, and small cell about 20%, SCC and non-small cell lung cancer-not otherwise specified (NSCLC-NOS) comprised only 10%. The major site of metastasis was liver, lymph nodes, and brain. (32) This variation in tumor subtypes prevalence among studies could be explained by some possible hypotheses; smokers inhaling more deeply after the development of filtered cigarettes, which promotes tumors of peripheral sites like adenocarcinoma, the changes in cigarette composition (higher nicotine percent) may have an active role in increasing the incidence of adenocarcinoma. Although many anti-smoking policies have resulted in a reduction in cancer rates, the incidence of bronchogenic carcinomas continues to increase. In addition, the proportion is higher in non-smokers than before. However, a high proportion of adenocarcinoma in individuals who had never smoked, could be due to other accompanying risk factors like genetic susceptibility, occupational risk, and air pollution. (33, 16)

Conclusion:
The results presented in this article reflects the profile of lung cancer in Al Najaf city. The prevalence of lung cancer in this city is almost similar to that reported previously in Iraq and some neighboring and regional countries. Although no specific trend for the incidence of lung cancer in Al Najaf city can be inferred from this study due to limited data, a slight decrease in rate of lung cancer in the two years of the study is noticed. Such study needs the official registry of the following years with further investigation.

Authors' contributions:
1. Zahraa Dhafer Al-Khateeb: writing the project, collecting data, writing draft, and research.
2. Liwaa Hussein Mahdi: supervisor, concept of the study, reviewing manuscript

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إنتشار سرطان الرئة في محافظة النجف والمسجلة في مركز أورام الفرات الأوسط
2020 – 2019

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الأستاذ الدكتور لواء حسين مهدي: بروفيسور في فرع الأمراض والطب العدلي /كلية الطب/جامعة الكوفه /النجف ـ العراق

الخلاصة:

الخلفية: سرطان الرئة مرض تنمو فيه خلايا الرئة خارج نطاق السيطرة وقد ينتشر إلى الغدد الليمفاوية أو أعضاء أخرى في الجسم مثل الدماغ. قد ينتشر السرطان من أعضاء أخرى أيضًا إلى الرئتين. تبلغ فرصة إصابة الرجل بسرطان الرئة في حياته حوالي 1 من كل 15 مقارنة بحوالي 1 من 17 للمرأة، وتشمل هذه الأرقام المدخنين وغير المدخنين، لكن الخطر أعلى بكثير عند المدخنين. في جميع أنحاء العالم، إنخفض إنتشار سرطان الرئة خلال العقد الماضي.

الأهداف: تحديد مدى إنتشار سرطان الرئة في محافظة النجف المسجلة في مركز أورام الفرات الأوسط خلال عامي 2019 و 2020.

المرضى والمنهجية: أجريت دراسة مقطعية مستندة إلى السجلات في مركز أورام الفرات الأوسط في مدينة النجف في الفترة من أكتوبر 2021 إلى فبراير 2022، وتمثل السكان المستهدفون بالمرضى الذين تم تشخيص إصابتهم بسرطان الرئة والمسجلين على مدار العامين الماضيين (2019 و 2020) وتم جمع البيانات. تم جمعها من هذا المركز ومن التقارير السنوية للسجل الوطني العراقي للسرطان. تم إستخدام إختبار تي المستقل ومربع كاي، وكانت قيمة الدلالة الاحصائية عند <0.05 معنوية. تم الحصول على موافقة لجنة المجلس العربي للإختصاصات الطبية ودائرة صحة النجف.

النتائج: تم تسجيل ما مجموعه 183 حالة خلال فترة الدراسة، 98 (53.6٪) في 2019 و 85 (46.4٪) في 2020. كان تسعة وخمسون (32.2٪) مريضا تتراوح أعمارهم بين 69-60 سنة و 59 آخرين (32.2٪)) بين 79-70 سنة. كان هناك 125 (68.3٪) من الذكور و 58 (31.7٪) من الإناث و 138 (75.4٪) من المدخنين و 59 (32.2٪) يعانون من زيادة الوزن. كان ثمانية وتسعون مريضًا (53.6٪) مصابين بسرطان الرئة اليمنى، و 103 (56.3٪) مصابين بسرطان الخلايا الحرشفية (SCC) ، و 43 (23.5٪) مصابين بسرطان غدي، و 32 (17.5٪) مصابين بسرطان الخلايا الصغيرة.كان الورم منتشرا في 108 (59٪) مريض، في العظام في 35 (19.1٪) مريضا وفي الكبد في 30 (16.4٪) مريضا. كان معدل انتشار سرطان الرئة في عام 2019 هو 6.5 / لكل 100000 (8.72 في الذكور و 4.25 في الإناث). خلال عام 2020، تم تشخيص 59 إصابة من الذكور و 26 من الإناث بسرطان الرئة، وكان انتشار سرطان الرئة 5.5 / لكل 100000 (6.7 في الذكور و 3.4 في الإناث). ارتبط سرطان الخلية الصغيرة بشكل كبير مع المرضى الذين تتراوح أعمارهم بين 69-60 سنة، والمدخنين، والتشخيص بالخزعة، والإنتشار في الغدد الليمفاوية فوق الترقوة والكبد.

الاستنتاجات: في النجف، كان انتشار سرطان الرئة في عام 2019 أعلى مما كان عليه في عام 2020 مع غلبة الذكور، وانتشار الورم في أكثر من نصف المرضى، وأكثرها شيوعًا في العظام والكبد. أكثر أنواع السرطان شيوعًا هي الخلايا الحرشفية، والسرطان الغدي، وسرطان الخلية الصغيرة.

الكلمات المفتاحية: سرطان الرئة، سرطان الخلايا الحرشفية، سرطان الخلايا الصغيرة، النجف، العراق.