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ORIGINAL

Level of information about lung cancer in patients at a Medical Office. Palma Soriano

Nivel de información sobre cáncer de pulmón en pacientes de un Consultorio Médico. Palma Soriano

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ABSTRACT

Introduction: lung cancer is a common malignant neoplasm in adults, with a multifactorial etiology, characterized by the uncontrolled proliferation of cells from the lower respiratory tract, particularly the lung parenchyma.
Objective: to characterize the level of information about lung cancer among patients belonging to Family Doctor's Office 1 in the municipality of Palma Soriano, Santiago de Cuba province.
Method: an observational, descriptive, cross-sectional study was conducted from January to April 2025. The study population consisted of 691 patients, selected through non-probabilistic intentional sampling. Descriptive statistics were used. Absolute and relative frequencies (percentage) were employed as summary measures.
Results: 51,81 % of the patients were female, and 29,09 % belonged to the 20-34 age group. The most frequent educational level was completed secondary education (25,33 %). Smoking as a risk factor was present in 20,55 % of patients, and 60,35 % showed an informed level about lung cancer.
Conclusions: a predominance of informed patients was identified, although exposure to multiple risk factors persists, notably the smoking habit and passive smoke exposure.

Keywords: Cancer of Lung; Lung Neoplasms; Physicians' Offices.

RESUMEN

Introducción: el cáncer de pulmón constituye una neoplasia maligna frecuente en adultos, de etiología multifactorial, caracterizada por la proliferación descontrolada de células del tracto respiratorio inferior, particularmente del parénquima pulmonar.
Objetivo: caracterizar el nivel de información sobre cáncer de pulmón en pacientes pertenecientes al Consultorio Médico de la Familia 1 del municipio de Palma Soriano, provincia Santiago de Cuba.
Método: se realizó un estudio observacional, descriptivo, de corte transversal en el periodo comprendido de enero a abril del 2025. El universo de estudio estuvo constituido por 691 pacientes, seleccionados mediante muestreo no probabilístico de tipo intencional. Se utilizó estadística descriptiva. Como medida de resumen de la información se utilizaron las frecuencias absolutas y relativas (porcentaje).
Resultados: el 51,81 % de los pacientes correspondió al sexo femenino y el 29,09 % perteneció al grupo de

20-34 años. El nivel educacional más frecuente fue secundaria terminada (25,33 %); el hábito de fumar como factor de riesgo estuvo presente en el 20,55 % y el 60,35 % de los pacientes mostraron un nivel informado sobre cáncer de pulmón.
Conclusiones: se identificó un predominio de pacientes informados, aunque persiste exposición a múltiples factores de riesgo, destacando el hábito de fumar y la exposición pasiva al humo.

Palabras clave: Cáncer de Pulmón; Neoplasias Pulmonares; Consultorios Médicos.

INTRODUCTION

Lung cancer (PC) is a common malignant neoplasm in adults, of multifactorial etiology, characterized by the uncontrolled proliferation of cells of the lower respiratory tract, particularly of the lung parenchyma. It originates predominantly in the bronchial epithelium and has a high capacity for local invasion and distant metastasis. The World Health Organization (WHO) defines it as the group of primary malignant epithelial tumors of the lung, excluding pleomorphic, sarcomatoid, carcinoid and salivary gland tumors.[1]

This pathology represents a persistent challenge for health systems. Despite advances in diagnostic techniques and therapeutic options, treatment results remain limited, reflected in low cure rates compared to the number of patients affected. It is mainly classified into non-small cell carcinoma and small cell carcinoma. Globally, it remains the most common malignancy. Its presentation predominates in men between 55 and 65 years of age, with a worrying increase in women, closely associated with smoking in this group.[2]

Factors such as smoking, population aging, genetic susceptibility, immunological alterations and environmental contamination have an impact on its high incidence. The late clinical presentation, the therapeutic limitations and the poor general prognosis consolidate it as a serious public health problem. It is one of the most prevalent neoplasms worldwide, with approximately 2,2 million new diagnoses per year and high mortality within the first year. Its prognosis is unfavorable, with a cure rate of only 15 %. The WHO projects an increase to 17 million cases by 2030.[3]

In Cuba, according to the Health Statistical Yearbook 2024, malignant tumors of the trachea, bronchus and lung have the highest mortality rate due to cancer in both sexes. In that year, 5,626 deaths were recorded, with a rate of 50,1 per 100 000 inhabitants. In incidence, it occupies third place, with gross rates of 66,7 per 100 000 in men and 38,6 per 100 000 in women. The province of Santiago de Cuba, and in particular the municipality of Palma Soriano, reports significant figures that reflect this national burden.[4]

Unfortunately, lung cancer is usually asymptomatic during most of its evolution; the appearance of symptoms frequently indicates advanced disease. Although there are advances in diagnosis and treatment, early diagnosis is difficult and rare.[4]

Considering the high morbidity and mortality due to lung cancer in Cuba, and the specific repercussion in the municipality of Palma Soriano, this research was carried out with the objective of characterizing the level of information about this disease in patients attended in a medical office of this municipality.

METHOD

An observational, descriptive and cross-sectional research was carried out from January to April 2025. The scope of the study was the Family Medical Office 1, located in the municipality of Palma Soriano, province of Santiago de Cuba. The target population consisted of all the patients assigned to this clinic (n=691), selected by means of a non-probabilistic intentional sampling.

After obtaining the voluntary informed consent of the participants, a survey instrument was administered. This consisted of a structured individual interview, previously validated by a committee of experts. Data collection was carried out by a multidisciplinary team made up of: a physician, a Defectology graduate, a stomatologist, three medical students and three nursing students. Although the survey included scientific terminology, clarifications were provided in accessible language, adapted to the educational level of each respondent. For the evaluation, one point was assigned for each correct answer; subsequently, 70 % of the total score obtained was calculated to determine the category (informed or uninformed).

The criteria for inclusion in the study were limited to patients registered in the Family Medical Clinic 1 of Palma Soriano. Exclusion criteria were established for: patients with intellectual disability that compromised their ability to participate and those who declined to take part in the research.

The variables analyzed included: age groups, sex, level of schooling, associated risk factors and degree of knowledge about lung cancer.

The information collected was organized in a database using Microsoft Office Excel. Statistical processing was performed with IBM SPSS Statistics software, version 18.0 for Windows. Descriptive statistical methods were employed, using absolute and relative frequencies (percentages) as summary measures.

The research protocol received the approval of the institution's Scientific and Ethics Council, guaranteeing adherence to the principles of the Declaration of Helsinki (prioritizing individual welfare over scientific or social interests). Confidentiality was strictly maintained, without disclosing data that would allow identification of the participants. Ethical and bioethical requirements for the protection of personal information were fully complied with, respecting the fundamental principles of autonomy, beneficence, non-maleficence and justice.

RESULTS

Female sex predominated (51,81 %). The majority age group was 20-34 years (29,09 %), followed by 50-64 years (25,62 %) (table 1).

Table 1. Distribution of patients according to age groups and sex

Age group	Sex				Total	
	Male		Female			
	No	%	No	%	No	%
20 a 34	89	12,88	112	16,21	201	29,09
35 a 49	78	11,29	92	13,31	170	24,60
50 a 64	94	13,60	83	12,01	177	25,62
65 and over	72	10,42	71	10,27	143	20,69
Total	333	48,19	358	51,81	691	100

Completed secondary school was the most frequent level (25,33 %), while unfinished primary school had the lowest representation (11,29 %) (table 2).

Table 2. Distribution of patients according to educational level

Educational level	No	%
Unfinished primary school	78	11,29
Primary school completed	92	13,31
Secondary school completed	175	25,33
Middle-level technician completed	143	20,69
Completed pre-university	89	12,88
University completed	114	16,50
Total	691	100

The main factors were smoking (20,55 %) and passive exposure to smoke (17,51 %). A total of 12,88 % did not present any risk factor (table 3).

Table 3. Distribution of patients according to lung cancer risk factors present

Risk factors	No	%
Smoking habit	142	20,55
Passive exposure to tobacco smoke	121	17,51
Exposure to radiation	34	4,92
Family history of cancer of other location	67	9,70
Family history of lung cancer	53	7,67
Personal history of chronic obstructive pulmonary disease	48	6,95
Personal history of other lung disease	41	5,93
Human immunodeficiency virus infection	12	1,74
Occupational hazards	59	8,54
Alcoholism	76	11
No risk factor present	89	12,88
More than one risk factor present	49	7,09

The majority of patients (n=417; 60,35 %) were informed about lung cancer, compared to 39,65 % (n=274) who were uninformed.

DISCUSSION

The results reveal that, although the majority of patients perceive themselves as informed, a significant gap

persists that demands specific interventions.

The sample reflects a balanced distribution between sexes, with a predominance of young adults and older adults; this age heterogeneity is a strength, as it allows us to explore patterns of knowledge in vulnerable groups. However, the lower representation of older adults contrasts with studies such as that of Vargas et al·where this group has the highest incidence of lung cancer. This could indicate a bias of access to health services in elderly or lower risk perception in young people, limiting the generalization of findings in the population most affected by the disease.

A high proportion of patients with technical-medium or higher education (53,07 %) stands out, similar to that reported in the study by Aldana et al.[6] on educational coverage. Despite this, 24,6 % only completed primary school or less, a critical group for health literacy campaigns. Studies such as that of Córdova et al.[7] confirm that lower schooling is associated with lack of knowledge of cancer symptoms and prevention.

Active and passive smoking are the predominant factors, in agreement with the research of Damonte et al.[8] and Espinoza et al.[9], which identifies tobacco as responsible for 85 % of global cases·which identify tobacco as responsible for 85 % of the overall cases. It is noteworthy that 12,88 % did not report any factor, which could reflect ignorance of non-tobacco risks (contamination, genetics) or underreporting in the collection. Additionally, the low report of occupational exposure contrasts with Cuban industrial zones according to the study by Gonzalez et al·suggesting biases in self-assessment. The coexistence of multiple factors in 7,09 % reinforces the need for an integral approach in prevention.

The fact that 60,35 % consider themselves "informed" is encouraging, but should be qualified: studies such as those by Ray et al.[11], Ruiz et al.[12] and Méndez et al.[13] found that only 48 % correctly identified alarm symptoms, showing a gap between perception and actual knowledge. The data of the present investigation do not clarify whether "information" includes early detection or prevention, a key limitation. Furthermore, the 39,65 % uninformed represent a health risk, especially if it coexists with avoidable factors (e.g., smoking).

Although most patients perceive themselves to be informed about lung cancer, the persistence of misinformation in about 40 %, coupled with high smoking rates, calls for reinforcing educational strategies. The association between low educational level and lack of knowledge, reported globally, should be explored in depth in this context. It is urgent to integrate knowledge assessment in primary care, linking it with smoking cessation and early diagnosis programs. Replication of this study with robust methodologies could validate these findings and optimize local public health policies.

CONCLUSIONS

Female sex was the majority, smoking, passive smoking exposure and occupational risks were the most relevant risk factors. Despite the predominance of informed patients, a part of the patients showed misinformation.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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