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SEXUAL HEALTH AND SEXUAL QUALITY OF LIFE IN PATIENTS WITH LUNG CANCER

ZDROWIE SEKSUALNE I JAKOŚĆ ŻYCIA SEKSUALNEGO U PACJENTÓW Z RAKIEM PŁUC

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Abstract

Background: Lung cancer is the most commonly diagnosed malignancy worldwide and the second most frequent cancer in Poland. Patients often experience reduced libido, sexual dysfunction and lower satisfaction with intimate relationships. Despite its importance to well-being, sexual health is frequently overlooked in clinical practice. Advances in treatment and improved survival rates highlight the need to assess how cancer and oncological therapies affect patients' sexual quality of life.

Aim: This review examines current literature on lung cancer diagnosis and treatment in the context of sexual health in women and men. It focuses on sexual satisfaction and common dysfunctions.

Methods: PubMed, Cochrane Library, Science Direct, Springer Link and Google Scholar were searched for articles addressing sexual health and sexual satisfaction in patients with lung cancer. Only English-language publications were included. Few studies from Poland were identified.

Results: The reviewed literature suggests that lung cancer negatively affects sexual quality of life in both women and men through reduced libido, impaired sexual functioning and lower satisfaction with sexual activity. The impact appears more pronounced in women.

Conclusions: These findings emphasize the need to address sexual concerns in oncology and provide holistic care that includes physical, emotional and intimate aspects of patients' lives.

Keywords: lung cancer, sexual life, sexual health, oncological therapy, sexual dysfunction.

Streszczenie

Tło: Rak płuca jest najczęściej rozpoznawanym nowotworem złośliwym na świecie i drugim pod względem częstości występowania w Polsce. Pacjenci często doświadczają spadku libido, dysfunkcji seksualnych i mniejszej satysfakcji z relacji intymnych. Mimo znaczenia dla dobrostanu zdrowie seksualne jest często pomijane w praktyce klinicznej. Postęp leczenia i poprawa przeżywalności wskazują na potrzebę oceny wpływu choroby i terapii onkologicznych na jakość życia seksualnego.

Cel badań: Przegląd aktualnego piśmiennictwa dotyczącego diagnozowania i leczenia raka płuca w kontekście zdrowia seksualnego kobiet i mężczyzn, ze szczególnym uwzględnieniem satysfakcji seksualnej oraz najczęstszych dysfunkcji.

Metody: Przeszukano bazy PubMed, Cochrane Library, Science Direct, Springer Link i Google Scholar w celu identyfikacji publikacji dotyczących zdrowia seksualnego i satysfakcji z życia seksualnego chorych na raka płuca. Uwzględniono wyłącznie publikacje anglojęzyczne. Zidentyfikowano niewiele badań z Polski.

Wyniki: Analiza piśmiennictwa wskazuje, że rak płuca negatywnie wpływa na jakość życia seksualnego kobiet i mężczyzn, obniżając libido, zaburzając funkcjonowanie seksualne i zmniejszając satysfakcję ze współżycia. Negatywny wpływ wydaje się bardziej nasilony u kobiet.

Wnioski: Wyniki podkreślają potrzebę uwzględnienia problemów seksualnych pacjentów onkologicznych i zapewnienia opieki holistycznej obejmującej aspekty fizyczne, emocjonalne i intymne.

Słowa kluczowe: rak płuc, życie seksualne, zdrowie seksualne, terapia onkologiczna, dysfunkcje seksualne.

Introduction

The latest estimates from the Global Cancer Observatory of the World Health Organization show that lung cancer is the most frequently diagnosed malignant neoplasm worldwide among patients of both sexes, with 2,480,301 cases reported in 2022. This constitutes 12.4% of all malignant neoplasms [1]. This trend is confirmed by epidemiological data from the European Union and Poland. In Poland, the highest incidence rate among men is observed for prostate cancer (23.3%, both nationally and across the EU), followed by lung cancer (13.7%). In women, the highest incidence is found in breast cancer (23.6% compared with 30% in the entire EU), followed by lung cancer (9.2%) [2][3].

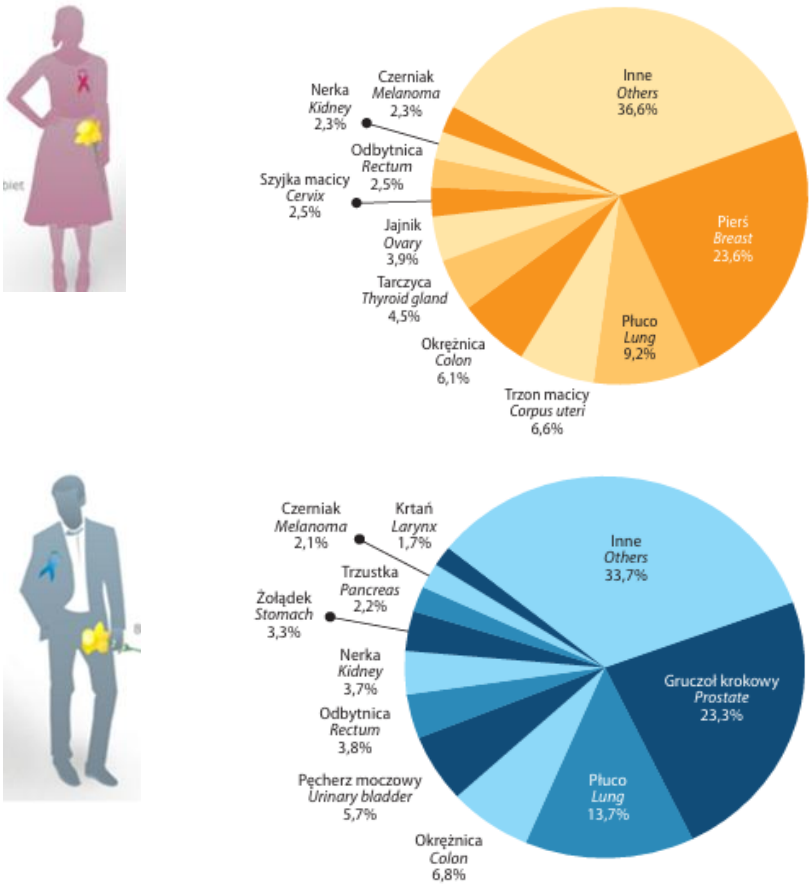


Figure 1. Structure of malignant neoplasm incidence in Poland in 2022

Source: National Cancer Registry. Malignant neoplasms in Poland in 2022 [2].

In the context of lung cancer, issues related to sexual health and sexual life satisfaction are often overlooked, marginalized, deprioritized, and consequently insufficiently investigated. Research in this field frequently does not include modern therapeutic methods such as immunotherapy and targeted therapies. For this reason, the prevalence of sexual dysfunction among lung cancer patients remains largely unknown [4]. This, in turn, significantly impairs this dimension of life, decreasing overall well-being and affecting partner relationships.

Studies on sexual health more commonly address cancers of the reproductive system or glands (e.g., cervical, breast, or prostate cancer), which directly affect the genital organs and influence

the patient's body image, feelings of sexual unattractiveness, and ultimately sexual functioning. However, the number of studies devoted to the sexual health of oncological patients with lung cancer remains insufficient. Nevertheless, available analyses confirm that sexuality has a comparable level of importance for patients regardless of cancer type [5][6].

Neglecting the problems and needs of patients with cancers other than gynecological or urological malignancies in analyses and research designs may lead to underestimation of the prevalence of sexual dysfunction in this population and limit the development of effective psycho-oncological support strategies. It may also perpetuate inequalities in access to holistic cancer care, encompassing not only physical but also emotional dimensions of patient health.

A Literature Review

A cancer diagnosis and treatment are always sources of intense psychological stress, affecting not only the patient but also their partner. This may lead to a significant decline in the sexual quality of life of couples. The high prevalence of depression and anxiety among oncology patients, combined with the adverse effects of chemotherapy and surgery, contributes to chronic fatigue and other symptoms that exacerbate psychological stress, which is reflected in sexual functioning [7][8].

Problems related to the diagnostic and therapeutic process of lung cancer in the context of sexual health may affect several domains, reducing sexual satisfaction, impairing sexual functioning, and hindering the experience and communication of sexual needs [5]. A particular issue is the loss of libido and impaired sexual performance caused by fatigue associated with chemotherapy [8][9][10], although virtually all therapeutic modalities can influence the sexual sphere [11]. Importantly, the negative changes in sexual well-being do not subside after treatment completion; rather, they persist long-term and may adversely affect overall quality of life, psychological health, and partner relationships [6].

Studies show that nearly 52% of lung cancer patients reported negative changes and expressed concerns related to their sexual lives [12]. Results from a study published in the Journal of Thoracic Oncology in 2025 indicate that only 19 out of 45 patients (42%) undergoing treatment for lung cancer reported sexual activity. Notably, only four of these were women [13]. These findings partially align with previous literature, indicating that men with lung cancer are more likely than women to remain sexually active and report higher sexual satisfaction. This has been attributed to gender-based differences and sociocultural behavioral norms [14][15], as culture

is linked to the clinical presentation, etiology, and perception of sexual dysfunction, as well as to beliefs and attitudes toward sexual health [16].

Similar results were obtained by Portuguese researchers who demonstrated that 55.7% of lung cancer patients reported little or no interest in sexual activity. In contrast, 44.3% reported a complete lack of sexual desire and cessation of sexual activity [4].

Gender-stratified analysis showed that 51.2% of men and 35% of women remained sexually active during illness. At the same time, nearly 54% of men and 70% of women reported having little or no interest in sexual activity. Furthermore, 31.4% of men and 60% of women stated that they rarely or never felt the need to engage in sexual intercourse [4].

In the Costa et al. study, men most frequently cited symptoms such as sadness, dyspnea, and fatigue (33%), lack of sexual interest (33%), and erectile difficulty (27%) as reasons for sexual inactivity. Only 40% of them were able to achieve an erection in more than half of sexual encounters [13]. Women, on the other hand, most often identified lack of interest in intercourse (40%), absence of a partner (20%), vaginal dryness or pain (10%), lung cancer symptoms (10%), and other factors. Notably, only one in four women undergoing lung cancer treatment did not experience vaginal discomfort [13].

These results are consistent with findings from the Portuguese study, where patients indicated the following reasons for sexual inactivity: lack of sexual interest (36.4%), erectile dysfunction (24.2%), health-related complaints (18.2%), and lack of pleasure during sexual interactions (12.1%) [4].

Researchers also demonstrated that the most significant negative factors affecting sexual life in patients of both sexes included chronic fatigue (38.6%), anxiety and stress (29.5%), symptoms directly associated with cancer such as dyspnea or cough (20.45%), and decreased mood (20.45%). Importantly, in Costa's study, more than half (51%) of patients noticed significant changes in their sexual life after diagnosis and treatment initiation, yet only 13% (six patients) discussed these issues with their treating physician [13]. According to experts, this constitutes a major barrier to proper diagnosis and management of these conditions [4].

The largest study to date assessing sexual problems and dysfunction in lung cancer patients undergoing oncological treatment is the Spanish multicenter cross-sectional LUDICAS study. It included 448 hospitalized patients from 24 medical centers in Spain, Colombia, Argentina, and Portugal. Of this group, 277 patients (61.83%) were men [11].

Sexual dysfunction (SD) emerged after treatment initiation in 284 patients (63%), which—combined with the fact that they neither received hormone therapy nor underwent radical pelvic procedures as seen in other malignancies—is interpreted in the context of the multidimensional nature of sexuality [17].

Both men and women reported frequent and considerable impairments in various phases of the sexual response cycle, with the prevalence of severe dysfunctions being significantly higher in women. Women also reported greater dissatisfaction with sexual activity and reduced sexual activity levels. Female sex emerged as a significant risk factor for severe disturbances in desire, arousal, and orgasm [11].

These results suggest that lung cancer diagnosis and therapy substantially deteriorate sexual quality of life in women, with the severity of sexual problems comparable to that seen in patients with gynecological malignancies [11][18]. Among men, the most commonly reported issues were anxiety (67%) and erectile dysfunction (23%), while as many as 75% retained sexual initiative [11].

Importantly, in the analyzed population, female sex was associated with a threefold increase in the risk of overall sexual dissatisfaction and significant impairment of sexual response, as well as a twofold increased risk of decreased sexual activity [11].

Similar conclusions regarding sexual life satisfaction in lung cancer patients are found in the study *Sexual Health of Patients in Treatment for Lung Cancer: An Undercover Concern for Patients and Oncologists* [4]. Among the 28 patients who reported sexual activity, 42.8% stated that they were completely dissatisfied or only slightly satisfied with their sexual life. When stratified by gender, dissatisfaction or low satisfaction was reported by 47.6% of men and 28.6% of women. Furthermore, 23.8% of men reported that sexual encounters provided little or no pleasure, compared with 14.3% of women [4].

Regarding the ability to achieve orgasm, approximately 47.6% of men and 57.1% of women stated that they achieved orgasm rarely or only occasionally. When orgasm occurred, 28.6% of men and 42.9% of women reported experiencing some level of satisfaction [4].

Additionally, only 14.3% of men were able to maintain an erection for more than half of the duration of sexual intercourse. Among sexually active women, 17.8% reported vaginal pain or discomfort and 14.3% reported genital discomfort during intercourse [4].

The SHAWL (Sexual Health Assessment in Women with Lung Cancer) study focused exclusively on female lung cancer patients and was the first project designed to evaluate the actual state of sexual health in women in the context of lung cancer diagnosis and treatment. Survey results showed that approximately 77% of respondents reported little or no interest in sexual activity of any kind. The main reasons for this lack of interest were sadness, fatigue, partner issues, and disease-related problems, predominantly dyspnea [19].

Conclusions

Lung cancer significantly worsens the sexual quality of life of patients, regardless of sex. Patients experience decreased libido, sexual dysfunction, and diminished satisfaction with intimate relationships, which translate into deterioration of overall psychological well-being and partner relationships. Women are particularly vulnerable to sexual dysfunction, and more frequently exhibit disorders of desire, arousal, and orgasm, as well as higher levels of dissatisfaction with intimate life compared with men affected by this disease. This disparity underscores the necessity of integrating sex-specific considerations into planning and implementing comprehensive oncological care [11].

Sexual problems associated with oncological treatment of lung cancer (surgery, chemotherapy) are multifactorial. They encompass biological components such as side effects of chemotherapy, chronic fatigue, and somatic symptoms, as well as psychosocial factors including depression, anxiety, reduced sense of attractiveness, and emotional stress. The interaction of these mechanisms leads to a substantial psychophysical burden on patients, requiring an integrated diagnostic and therapeutic approach.

Available analyses reveal a gap in communication between patients and medical staff regarding sexual issues. Only a minority of treating physicians discuss sexual concerns with their patients, which hinders proper diagnosis, prevention, and treatment of sexual dysfunction. This indicates the need to educate both patients and clinicians on the importance of sexual health as an integral aspect of quality of life in oncological disease.

The collected evidence also highlights the necessity of further extensive research on sexual quality of life among individuals with lung cancer, taking into account demographic, clinical, and psychosocial variables. Development of effective therapeutic strategies that support this domain of patients' lives is crucial.

Author Contributions

Conceptualization, Wiktoria Sochal; methodology, Mikołaj Czerwonka; investigation, Julia Kot, Weronika Źrodowska and Wiktoria Sochal; resources, Weronika Źrodowska and Mateusz Sobierajski; validation, Mateusz Sobierajski; visualization, Wiktoria Sochal; writing- original draft preparation, Mikołaj Czerwonka, Julia Kot, Weronika Źrodowska, Wiktoria Sochal and Mateusz Sobierajski; writing – review and editing, Mikołaj Czerwonka and Mateusz Sobierajski; project administration, Wiktoria Sochal.

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Declaration of AI and AI- assisted Technologies in the Writing Process

The author used ChatGPT solely for the purpose of translating a small portion of the manuscript into English. The translated text was subsequently reviewed and approved by the authors, who take full responsibility for the scientific content of the publication.

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