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MANAGEMENT OF SYMPTOMS, SPECIFIC SUPPORT NEEDS, AND ADAPTATION TO THE DISEASE IN PATIENTS WITH ADVANCED AND METASTATIC LUNG CANCER

Roxana-Andreea Rahnea-Niță[1], Gabriela Rahnea-Niță[2], Mihaela Popescu[3], Cristinel Dumitru Badiu[4], Anda-Natalia Ciuhu[2]

[1] *"Dr. Constantin Gorgos" Titan Psychiatric Hospital, Department of Oncology, Bucharest, Romania*
[2] *"Sf. Luca" Chronic Diseases Hospital, Department of Oncology-Palliative Care, Bucharest, Romania*
[3] *"Colentina" Clinical Hospital, Department of Hematology, Bucharest, Romania*
[4] *"Bagdasar Arseni" Clinical Emergency Hospital, Department of Surgery,*
University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania

Summary

80% of lung cancer patients present with locally advanced or metastatic disease; therefore, lung cancer is a major public health problem and the management of symptoms is very important. Patients with advanced and metastatic lung cancer were evaluated, regarding the range and severity of symptoms, by using the Edmonton Symptoms Assessment Survey (ESAS) and treatment of the main 5 symptoms. They were also evaluated with concern to their specific needs and the adaptation to cancer disease by using the Needs Near the End of Life Screening Tool (NEST 13)–Item 1, 2, 3 and 4. The most important 5 symptoms of moderate or severe intensity were the following: pain, fatigue, breathlessness, worst general health state and other symptoms. Opioids are the main treatment for pain and breathlessness, while corticosteroids are used in pain, breathlessness, and fatigue treatment. Patients with advanced or metastatic lung cancer require the assessment and treatment of symptoms and access to psychological and social assistance.
Key words: lung cancer, symptoms, opioids

Résumé

La conduite des symptômes, les besoins spécifiques d'assistance et l'adaptation à la maladie chez les patients atteints de cancer du poumon en stade avancé ou métastatique

Quatre-vingt pourcent des patients atteints de cancer du poumon présentent une maladie en stade localement avancé ou métastatique, raison pour laquelle le cancer du poumon est un problème majeur de santé publique et la conduite des symptômes est très importante. Les patients atteints de cancer du poumon avancé ou métastatique ont été évalués du point de vue de la gravité des symptômes en utilisant l'Etude d'Evaluation des Symptômes Edmonton (ESAS) et le traitement des principaux cinq symptômes. Ils ont été aussi évalués en ce qui concerne leurs besoins et l'adaptation à la maladie spécifiques en utilisant Needs Near the End of Life Screening Tool (NEST 13) - Articles 1, 2, 3 et 4. Les plus importants cinq symptômes d'intensité modéré et sévère sont: la douleur, la fatigue, la difficulté de respirer, le pire état général possible et d'autres symptômes. Les opioïdes constituent le traitement principal de la douleur et de la dyspnée, tandis que les corticostéroïdes sont utilisés dans le traitement de la douleur, la dyspnée et la fatigue. Les patients atteints de cancer du poumon avancé ou métastatique nécessitent l'évaluation et le traitement des symptômes et l'accès à une assistance psychologique et sociale.
Mots clefs: cancer du poumon, symptômes, opioïdes

Correspondence address: *Gabriela Rahnea Nita, MD, PhD*
"Sf. Luca" Chronic Diseases Hospital, 12 Berceni Street, District 4, Bucharest, Romania
e-mail: gabriela_rahnea@yahoo.com

Background

Lung cancer patients experience physical, psychological symptoms and social needs more than patients with other types of cancer. Patients have impaired physical and social functions due to lung cancer induced symptoms. Also, they have a poor quality of life (1).

Palliative care is a medical concept that addresses the supportive care needs which occur during a life-threatening disease, being focused on the early identification of symptoms and other psychological and practical burdens, aiming at relieving the suffering and giving the support for the best possible quality of life (2,3).

While surgery, radiotherapy and chemotherapy are part of the specific treatment of lung cancer, palliative care can manage symptoms and side effects like pain, fatigue, nausea, constipation, breathlessness, depression and anxiety (4,5).

Material and methods

Patients with advanced and metastatic lung cancer, admitted to the Department of Oncology - Palliative Care of "Sf. Luca" Chronic Diseases Hospital in Bucharest, over a period of one month, in 2015, were evaluated regarding the range and severity of symptoms, by using the Edmonton Symptoms Assessment Survey (ESAS) and with concern to their specific needs and the adaptation to cancer disease by using the Needs Near the End of Life Screening Tool (NEST 13) – Item 1,2,3 and 4 (6,7,8,9).

ESAS is a screening tool for patients admitted to the department.

Of the 248 lung cancer patients admitted to the department, 108 were eligible for inclusion and enrolled (enrollment rate of 100%). 140 patients were excluded based upon cognitive deficits or due to their poor functional status.

Moreover, of the 108 lung cancer patients, 76 patients (70,37%) received chemotherapy and palliative care and 32 patients (29,63%) received only palliative care.

The approval from the Medical Ethics Commission of "Sf. Luca" Chronic Diseases Hospital had been previously obtained.

Face to face interviews were conducted; the participants were given explanations regarding the purpose and the importance of the study and they also signed a written informed consent, in accordance with the research, in which they freely agreed to join this study.

Data obtained were analyzed by using Microsoft Office Excel 2010.

Results and Discussion

The mean age was 62.63 years.

The patients' distribution according to gender was males 70.37% and females 29.63%.

The patients' distribution according to life environment was urban 70.37% and rural 29.63%.

Moreover, the patients' distribution according to the studies and education was elementary 55.56%, secondary 25.93% and university 18.52%.

Regarding the treatment applied: 32 patients (29.63%) received only palliative care, while 76 patients (70.37%) received palliative care and chemotherapy regimens: Cisplatin + Etoposide: 21 patients, Cisplatin + Docetaxel: 21 patients, Cisplatin + Gemcitabine: 9 patients, Cisplatin + Paclitaxel: 9 patients, Cisplatin + Vinorelbinum: 8 patients, Pemetrexed: 7 patients, Bevacizumab: 1 patient.

The Edmonton Symptoms Assessment Survey used the following scale: 0 (not at all), 1-3 (mild), 4-6 (moderate), 7-10 (severe).

The results are presented in table 1 and table 2.

The Needs Near the End of Life Screening Tool used a scale from 0 (not at all) to 10 (complete). It assessed the following parameters:

Item 1: The extent to which the illness was a financial problem for the patient and his family. The results are presented in table 3.

Item 2: The trouble the patient had to go through to get the medical care he needed. The results are presented in table 4.

Table 1 - Assessments of 9 symptoms: Pain, Fatigue, Drowsiness, Nausea, lack of appetite, Breathlessness, Depression, Anxiety, Other symptoms

	Pain	Fatigue	Drowsiness	Nausea	Lack of appetite	Breathlessness	Depression	Anxiety	Other symptoms
Not at all	18.52%	7.41%	29.63%	29.63%	29.63%	18.52%	40.74%	18.52%	14.81%
Mild	18.52%	37.04%	22,22%	40.74%	29.63%	22.22%	25.93%	37.04%	25.93%
Moderate	22.22%	14.81%	11.11%	14.81%	18.52%	25.93%	25.93%	25.93%	37.04%
Complete	40.74%	40.74%	37.04%	14.81%	22.22%	33.33%	7.41%	18.52%	22.22%

Table 2 - Assessments of feelings of health state

Best health state	7.41%
Moderate health state	37.04%
Mild health state	37.04%
Worst health state	18.52%

Table 3 - Financial hardship

Not at all	7.41%
Mild	7.41%
Moderate	25.93%
Complete	59.26%

Table 4 - The trouble the patient had to go through to get the medical care he needed

Not at all	22.22%
Mild	18.52%
Moderate	22.22%
Complete	37.04%

Table 5 - The help the patient needed to get the meals or to get to the doctor

Not at all	18.52%
Mild	11.11%
Moderate	14.81%
Complete	55.56%

Item 3: The help the patient needed to get the meals or to get to the doctor. The results are presented in table 5.

Item 4: To what extent the illness seemed senseless and meaningless. The results are presented in table 6.

Table 6 - To what extent the illness seemed senseless and meaningless

Not at all	7.41%
Mild	3.70%
Moderate	22.22%
Complete	66.67%

The most important 5 symptoms of moderate or severe intensity were: pain, fatigue, breathlessness, worst general health state and other symptoms.

Pain was due to lung cancer itself (chest pain) or to distant extra thoracic metastases (bone, spinal cord, brain, or liver) (10).

Each dimension of pain had to be assessed (physical, psychological, social, and spiritual).

Pain treatment was in concordance with the analgesic ladder (WHO scale). For mild pain, the treatment was based on acetaminophen and nonsteroidal anti-inflammatory drugs, and for moderate or severe pain, the treatment was based on opioids and adjuvant drugs like corticosteroids, antidepressants, anticonvulsants, neuroleptics, baclofen, clonidine and local anesthetics (11,12).

Cancer-related fatigue was a very distressing symptom, having a progressive nature throughout the treatment and also an impact on functional ability, leading to depression and decreasing the feelings regarding the health state. A worst general health state was associated with symptoms of moderate or severe intensity (13,14).

The pharmacological treatment of fatigue was based on corticosteroids and the non-pharmacological treatment was physical therapy (14).

Pulmonary symptoms in patients with lung cancer (breathlessness and other symptoms like wheezing, cough, hemoptysis) were caused by cancer itself, by locoregional metastases (superior vena cava syndrome, pleural effusions), or as a result of lung cancer treatment. Prevalence of respiratory symptoms depended on tumor histopathology, disease stage, gender, and age (2).

Dyspnea is a prominent symptom in patients with advanced and metastatic lung cancer. The management of this symptom includes assessment and reassessment, opioids, corticosteroids and anxiolytics, supplemental oxygen, rehabilitation programs and counseling (15,16,17).

The use of opioids in dyspnea relieving can lead to respiratory depression and hasten death, having no evidence in several observational studies (18,19).

The psychological distress of lung cancer patients is the highest compared to patients with other serious tumors. It is associated with pain, poor performance status, age and social support (2,20,21). Patients who receive palliative care and cancer treatment have fewer symptoms of depression compared to patients who only receive cancer treatment.

85.19% of the patients had moderate or complete financial needs, 59.26% of the patients needed moderate or total help in order to have access to care, while 70.37% of the patients needed help with homemaking tasks or nursing care.

Financial needs could arise from health support needs or when patients lose their jobs, are not working during some periods of treatment, or have no health insurance.

For 88.89% of the patients, the illness was senseless and meaningless. This meant an extensive need for communication, illness diagnosis, and prognosis understanding.

This study demonstrated that patients with advanced or metastatic lung cancer required the assessment and treatment of symptoms, and also, access to psychological and social assistance (22).

Conclusions

Optimal outcomes from palliative care key-interventions, requiring a multi- level approach are essential for preserving the function and optimizing the quality of life of lung cancer patients. Therefore, the integration of palliative care into the routine clinical management of these patients would give benefits to patients, their family and also to the health care team (1,2,3,22,23,). The evaluation and palliation of symptoms and specific support needs of the lung cancer patient are possible and the health care professionals who provide this type of care must take these issues into consideration (10).

Limitation of the study

This study was performed in a single Oncology-Palliative Care Department. A multicentre study with a larger sample size would allow the accomplishment of more definite conclusions.

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REFERENCES

1. Yates P, Schofield P, Zhao I, Currow D. Supportive and palliative care for lung cancer patients. Journal of Thoracic Disease. 2013 Oct; 5(Suppl 5):S623–S628.
2. Ferrell B, Koczywas M, Grannis F, Harrington A. Palliative Care in Lung Cancer. Surg Clin North Am. 2011 Apr; 91(2):403–417.
3. Temel JS, Greer JA, Muzikansky A, Gallagher ER, Admane S, Jackson VA, Dahlin CM, Blinderman CD, Jacobsen J, Pirl WF, Billings JA, Lynch TJ. Early Palliative Care for Patients with Metastatic Non–Small-Cell Lung Cancer. N Engl J Med. 2010 August 19; 363:733-742.
4. Grigorean VT, Rahnea Niță G, Georgescu L, Sandu AM, Tuinea LT, Ciuhu AN. Corrélation entre l'évaluation des symptômes et la qualité de vie chez les patients oncologues. Archives of the Balkan Medical Union. 2014; 2:139-148.
5. Wada S, Shimizu K, Inoguchi H, Shimoda H, Yoshiuchi K, Akechi T, Uchida M, Ogawa A, Fujisawa D, Inoue S, Uchitomi Y, Matsushima E. The Association Between Depressive Symptoms and Age in Cancer Patients: A Multicenter Cross-Sectional Study. Journal of Pain and Symptom Management. 2015 December; 50(6):768–777.
6. Bruera E, Kuehn N, Miller MJ, Selmser P, Macmillan K. The Edmonton Symptom Assessment System (ESAS): a simple method for the assessment of palliative care patients. J Palliat Care. 1991; 7:6-9.
7. Emanuel LL, Alpert HR, Emanuel EE. Concise Screening Questions for Clinical Assessments of Terminal Care: The Needs Near the End-of-Life Care Screening Tool. Journal of Palliative Medicine. 2001; 4(4):465-474.
8. Grudzen CR, Richardson LD, Morrison M, Cho E, Morrison RS. Palliative care needs of seriously ill, older adults presenting to the emergency department. Acad Emerg Med. 2010 Nov; 17(11):1253-7.
9. Scandrett KG, Reitschuler-Cross EB, Nelson L et al. Feasibility and effectiveness of the NEST13+ as a screening tool for advanced illness care needs. J Palliat Med. 2010; 13(2):161– 169.
10. Kvale PA, Selecky PA, Prakash UB. American College of Chest Physicians. Palliative care in lung cancer: ACCP evidence-based clinical practice guidelines (2nd edition). Chest. 2007 Sep; 132(3 Suppl):368S-403S.
11. World Health Organization. Cancer pain relief with a guide to opioid availability, 2nd ed., 1996, Geneva, Switzerland: World Health Organization.
12. Zbârcea CE, Negreș S, Chiriță C. Gabapentin, alone and associated with tramadol reduces peripheral paclitaxel-induced neuropathy in rats. Farmacia. 2011; 59(3):414-423.
13. Borthwick D, Knowles G, McNamara S, Dea RO, Stroner P. Assessing fatigue and self-care strategies in patients receiving radiotherapy for non-small cell lung cancer. Eur J Oncol Nurs. 2003 Dec; 7(4):231-41.
14. Rahnea Nita G, Slavila M, Francu DE, Mocanu AM, Rahnea Nita RA, Popescu M, Ciuhu AN. Involvement of physical therapy and spiritual care in cancer-related symptoms management. Archives of the Balkan Medical Union. 2015; 2:237-241.
15. Campbell ML. Terminal dyspnea and respiratory distress. Crit Care Clin. 2004; 20:403–417.
16. Corner J, Plant H, A'Hern R, Bailey C. Non-pharmacological intervention for breathlessness in lung cancer. Palliat Med. 1996; 10:299–305.
17. Mancini I, Body JJ. Assessment of dyspnea in advanced cancer patients. Support Care Cancer. 1999; 7:229–232.
18. Bercovitch M, Waller A, Adunsky A. High dose morphine use in the hospice setting: a database survey of patient characteristics and effect on life expectancy. Cancer. 1999; 86:871–877.
19. Sykes N, Thorns A. The use of opioids and sedatives at the end of life. Lancet Oncol. 2003; 4:312–318.
20. Smith EL, Hann DM, Ahles TA et al. Dyspnea, anxiety, body consciousness, and quality of life in patients with lung cancer. J Pain Symptom Manage. 2001 Apr; 21(4):323–329.
21. Tishelman C, Petersson LM, Degner LF et al. Symptom prevalence, intensity, and distress in patients with inoperable lung cancer in relation to time of death. J Clin Oncol. 2007; 25:5381-9.
22. Greer JA, Jackson VA, Meier DE, Temel JS. Early integration of palliative care services with standard oncology care for patients with advanced cancer. CA Cancer J Clin. 2013 Sep; 63(5):349-63.
23. Smith T, Temin S, Alesi ER et al. American Society of Clinical Oncology Provisional Clinical Opinion: The Integration of Palliative Care into Standard Oncology Care. J Clin Oncol. 2012; 30(8):880-887.