

Use of Palliative Radiotherapy among Patients with Metastatic Non-Small-Cell Lung Cancer in Puerto Rico

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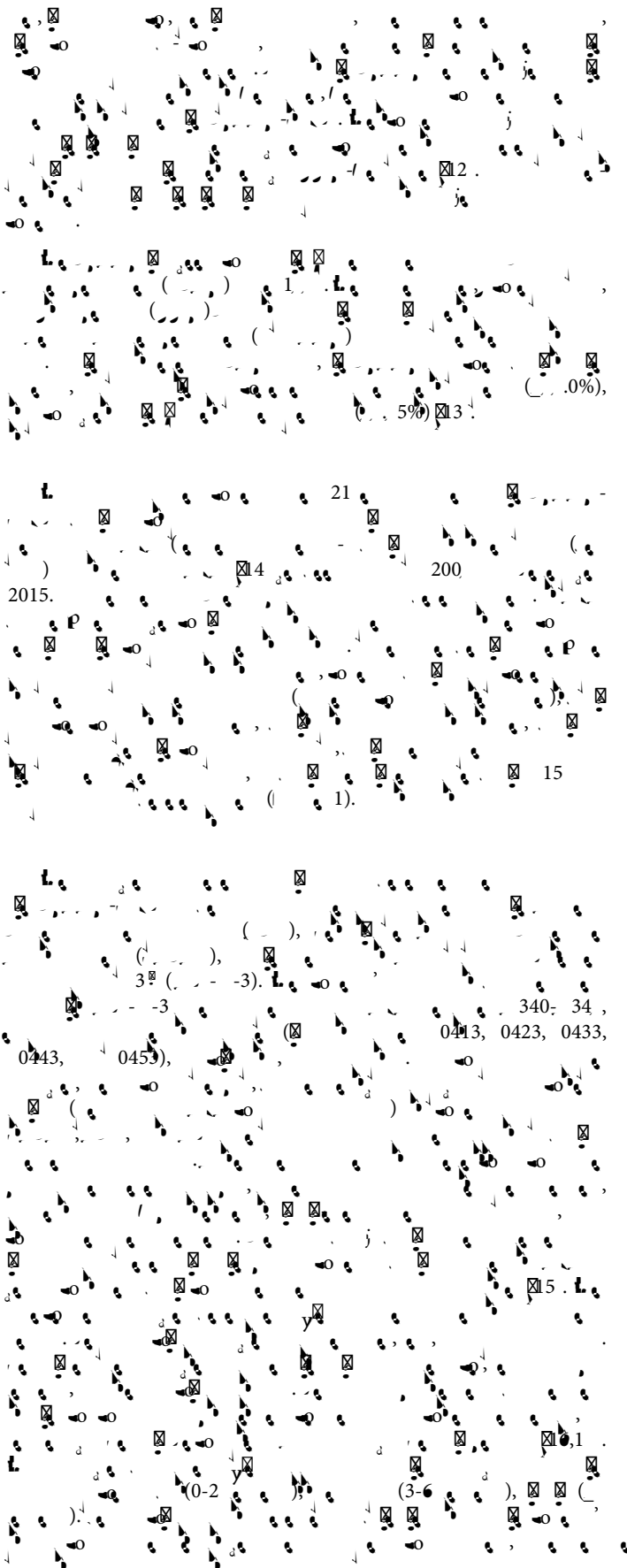
Abstract

Purpose: Palliative radiotherapy (RT) represents an important treatment opportunity for improving the quality of life in metastatic non-small cell lung cancer (NSCLC) patients through the management of symptoms within the course of the illness. This study examines the patient and clinical factors associated with palliative RT use among metastatic NSCLC patients in Puerto Rico.

Methods: A retrospective cohort study was performed using secondary data analysis from 2009-2015 from the Puerto Rico Central Cancer Registry–Health Insurance Linkage Database (PRCCR-HILD). A logistic regression model was used to examine factors associated palliative RT.

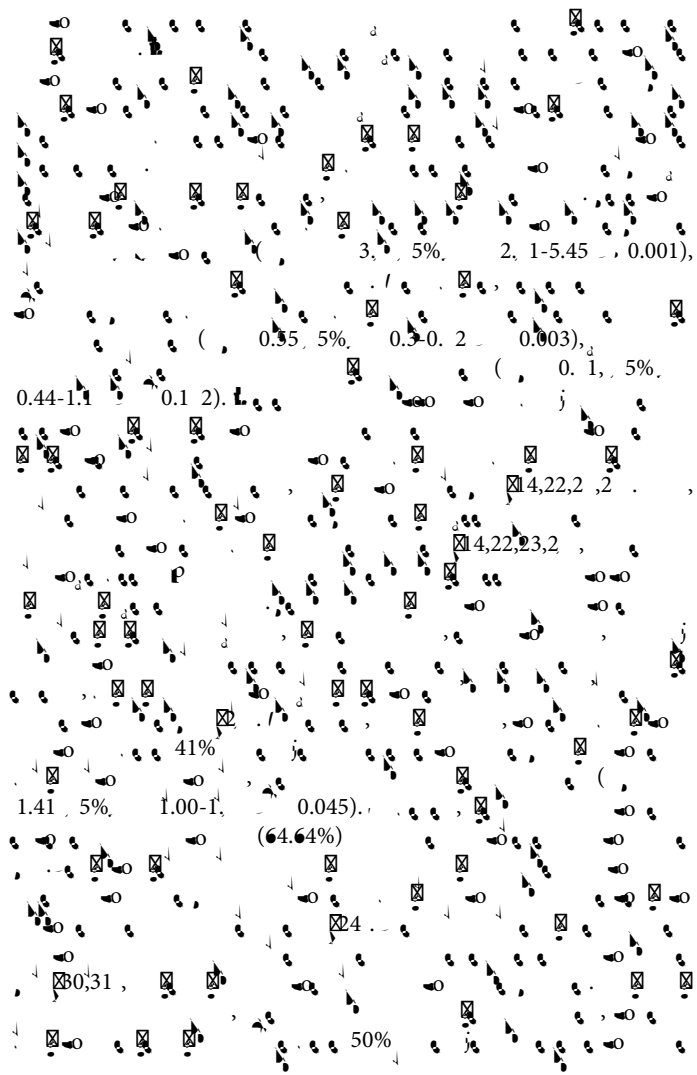
Results: The study included 1,000 patients with metastatic NSCLC. The majority of patients were male (65%) and had a median age of 68 years. The most common symptoms were cough (45%), chest pain (35%), and shortness of breath (30%). The majority of patients (75%) were treated with palliative RT. The factors associated with palliative RT use were male sex (OR 1.5, 95% CI 1.2-1.8), advanced stage (OR 1.2, 95% CI 1.0-1.4), and presence of symptoms (OR 1.8, 95% CI 1.5-2.1).

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Characteristic	Unadjusted Model		Adjusted Model	
	Odds Ratio (95% CI)	P Value	Odds Ratio (95% CI)	P Value
Age group (years)				
21-59	1.00	-	1.00	-
60-70	0.65 (0.28-1.50)	0.35	0.65 (0.28-1.50)	0.35
71-80	0.61 (0.27-1.38)	0.003	0.61 (0.27-1.38)	0.002
Sex				
Male	1.00	-	1.00	-
Female	0.71 (0.31-1.64)	0.43	0.71 (0.31-1.64)	0.43
Marital Status				
Unmarried	1.00	-	1.00	-
Married	0.75 (0.33-1.70)	0.51	0.75 (0.33-1.70)	0.51
Unknown	0.71 (0.31-1.64)	0.43	0.71 (0.31-1.64)	0.43
Health Insurance				
Medicaid	1.00	-	1.00	-
Medicare	0.75 (0.33-1.70)	0.020	0.75 (0.33-1.70)	0.109
Private	0.61 (0.27-1.38)	<0.0001	0.61 (0.27-1.38)	0.061
Density of RT Centers				
Low (0-2)	1.00	-	1.00	-
3-5	0.65 (0.28-1.50)	0.35	0.65 (0.28-1.50)	0.35
6-10	0.61 (0.27-1.38)	0.43	0.61 (0.27-1.38)	0.43
Geographic Location				
Urban	1.00	-	1.00	-
Nonmetro	0.65 (0.28-1.50)	0.35	0.65 (0.28-1.50)	0.35
Surgery				
No	1.00	-	1.00	-
Yes	0.65 (0.28-1.50)	0.35	0.65 (0.28-1.50)	0.35



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