Nutritional Risk status predicts overall survival of Elderly Mexican patients with advanced non-small-cell lung cancer (NSCLC)

S Campos Gomez, J Valdez Andrade, J Esquivel Gutierrez, H Ramirez Montoya, E Jaimes Alpizar, G Pachecho Cuellar, Karen Campos Gomez
Department of Medical Oncology, Centro Oncologico Estatal, Instituto de Seguridad Social del Estado de México y Municipios, Toluca, Mexico

Introduction

The nutritional status has been a useful predictor of survival in various cancers. However, the utility of a new nutritional screening tool specifically for oncology patients (NUTRISCORE) to detect nutritional risk for malnutrition in elderly patients with advanced lung cancer has not been examined.

The aim of this study was to assess nutritional risk for malnutrition status estimated by NUTRISCORE as prognostic factor in elderly patients with advanced non-small cell lung cancer.

Materials and Methods

We evaluated 126 patients with advanced lung cancer (IIIB and IV). We enrolled patients over 70 year with pathologically confirmed advanced NSCLC Eastern Cooperative Oncology Group performance status (ECOG-PS) scores between 0 and 2.

Demographic and clinical data were collected. Nutritional risk status was estimated by NUTRISCORE at diagnosis in routine screening evaluation before systemic treatment.

Assessed eligibility
Pattients with non-small cell lung cancer (NSCLC) **(n =126)**

Excluded patients
Patients under 70 year (n=86)

Enrolled patients for analysis (n=40)
Biopsy confirmed advanced NSCLC
Eastern Cooperative Oncology Performance 0-2
NUTRISCORE **Risk** (n=23) **No Risk** (n=17)

Fig 1. Flow diagram of patient enrollment

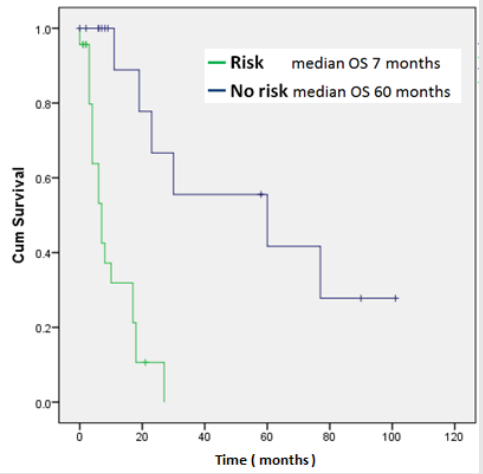
Kaplan-Meier survival analysis and the log-rank test were used to calculate OS. Univariate and multivariate analysis to identify variables associated with OS were assessed using Cox regression model.

Results

A total of 40 of 126 elderly advanced lung cancer patients (≥70 years old) were included between 2013 and 2018.

Among the included patients, the mean age was 76 years and 20 (50%) patients were male. Twenty three (60%) and 17 (40%) patients were assigned to nutritional risk group and no risk group, respectively.

Variables	Multivariate analysis HR (95% CI)	p-value
Sex		
Men	1.245 (0.72-1.76)	0.281
Women		
Smoking		
Never smoke	0.82 (0.40-1.68)	0.374
ECOG		
0-1	1.303 (0.58-2.89)	0.242
2		
Stage		
IIIB	2.07 (1.01-4.23)	0.167
IV		
Decreced appetite	3.170 (1.68-3.28)	0.000*
Unitentional Weightloss	3.10 (0.80-1.24)	0.005*
Currently receiving chemotherapy	2.57 (1.40- 2.70)	0.290
Currently receiving radiation therapy	1.05 (0.46-2.14)	0.677



Median overall survival (OS) was worse in the nutritional risk (risk vs no risk, 7 vs 60 months; p 0.000).

In multivariate analysis, nutritional risk, involuntary weight loss and decreased appetite were independent prognostic factors for OS..

References

1. Currow DC, and LeBlanc TW: It is time to rethink weight loss in cancer. Ann Oncol 29, 1090–1091, 2018xt
2. Aapro M, Arends J, Bozzetti F, Fearon K, Grunberg SM, et al.: Early recognition of malnutrition and cachexia in the cancer patient: A position paper of a European School of Oncology Task Force. Ann Oncol 25, 1492–1499, 2014

Conclusions

The assessment of NUTRISCORE risk could assist the identification of elderly patients with advanced lung cancer with poor prognosis and a factor to attend in and probe in future clinical trials.