

Increased survival in patients with metastatic NSCLC receiving treatment in academic centers

October 10 2018

Patients with metastatic NSCLC receiving treatment at academic centers (ACs) have an increased 2-year survival compared to patients treated at community-based centers (CCs). An overall histology-dependent survival was also noted in patients with adenocarcinoma versus squamous cell carcinoma and varied by treatment facility.

Lung cancer is the most common cancer and the leading cause of cancer-related death worldwide. There are two major types of [lung](#) cancer, small cell and non-small cell [lung cancer](#) (NSCLC). Roughly 85% of diagnosed lung cancers are NSCLC with about 40% of NSCLC patients presenting with stage IV metastatic disease. Adenocarcinoma histological subtype accounts for 40% of all NSCLC and squamous cell carcinoma histological subtype accounts for roughly 30%. Treatment for metastatic NSCLC has evolved dramatically over the last two decades with an increasing focus on treatment strategies driven by histology and molecular profile of the tumor [cells](#). With the availability of new treatment agents and molecular testing there is growing concern that oncologists at ACs may have access to resources and specialists that CCs may not have access to and that disparities in care and survival differences may exist.

A group of investigators from Duke University in the United States used the National Cancer Database (NCDB) to retrospectively evaluate whether treatment at ACs was associated with a survival advantage in

metastatic NSCLC. The data was selected from 1998 to 2012 after the introduction of novel NSCLC chemotherapy agents. The primary outcome was 2-year survival that was analyzed using a multivariable regression model controlling for age, year of diagnosis, gender, primary payer, histology, and facility type (ACs verses CCs).

The [results of the study](#) were published in the *Journal of Thoracic Oncology*, the official journal of the International Association for the Study of Lung Cancer (IASLC) . A total of 193,279 patients with clinical or pathologic metastatic NSCLC were included in the study. All baseline differences between ACs and CCs were statistically significant at pcancer (a total of 22 conditions), 7.3% versus 9.3%. There was also a lower percentage of patients insured by Medicare in ACs compared to CCs, 37.4% versus 47.9%.

A greater increase in survival was noted in ACs compared to CCs. In 1998 the percentage of patients achieving 2-year survival was higher in ACs versus CCs, 11.5% versus 9.2%, and by 2010 had increased to 17.4% versus 13.1% respectively. An overall histology-dependent survival difference was also noted in adenocarcinoma versus squamous cell carcinoma, 10.2% versus 9.9% in 1998, increasing to 17.3% versus 10.1% in 2010. Adenocarcinoma survival also varied by treatment facility, where the difference in 2-year survival in ACs versus CCs increased from 12.3% versus 9.1% in 1998 to 20.5% versus 15.5% in 2010.

The authors comment that, "To our knowledge, this is the first study comparing outcomes between ACs and CCs broadly across metastatic NSCLC using a multivariable model to control for confounding factors. We observed that patients treated at ACs and CCs with metastatic NSCLC had improving survival from 1998 to 2010 and that this improvement in outcomes occurred to a greater extent in patients treated in ACs. This survival advantage was predominantly seen in patients with

adenocarcinoma histology compared to [squamous cell carcinoma](#). Because of the asymmetric increase in treatment options for adenocarcinoma and the absence of data for specific systemic agents in the NCDB, this histology-based difference was consistent with our hypothesis that [treatment](#) within ACs has conferred a survival advantage for [patients](#) with NSCLC following the introduction of novel targeted therapies that require a molecularly-driven, histologically-specific approach."

Provided by International Association for the Study of Lung Cancer

Citation: Increased survival in patients with metastatic NSCLC receiving treatment in academic centers (2018, October 10) retrieved 20 September 2024 from
<https://medicalxpress.com/news/2018-10-survival-patients-metastatic-nsclc-treatment.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.