Conference Abstracts

Sociodemographic characteristics associated with never smokers with lung cancer in an integrated health system

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Keywords: sociodemographic characteristics, lung cancer, health system, smokers

https://doi.org/10.53876/001c.73867

International Journal of Cancer Care and Delivery

BACKGROUND

Evidence is limited characterizing sociodemographically diverse patient populations with lung cancer in relation to smoking status.

METHODS

In a cross-sectional analysis of adults diagnosed with lung cancer at ages ≥30 years from 2007-2018 within an integrated healthcare system, overall and sex-specific prevalence of never smoking were estimated according to sociodemographic and clinical characteristics. Adjusted prevalence ratio (aPR) and 95% confidence interval (CI) were also estimated using modified Poisson regression to identify patient characteristics associated with never smoking, overall and by sex. Similar analyses were conducted to explore whether prevalence and association patterns differed between non-Hispanic White and Asian/Pacific Islander patients.

RESULTS

Among 17,939 patients with lung cancer, 2,780 (15.5%) never smoked and 8,698 (48.5%) had adenocarcinoma. Overall prevalence of never smoking was higher among females than males (21.2% vs. 9.2%, aPR 2.13, 95% CI: 1.98-2.29); Asian/Pacific Islander (aPR 2.85, 95% CI: 2.65-3.07) and Hispanic (aPR 1.72, 95% CI: 1.51-1.95) than non-Hispanic White patients; patients who primarily spoke Spanish (aPR 1.60, 95% CI: 1.52-1.94), any Asian language (aPR 1.20, 95% CI: 1.10-1.30), or other languages (aPR 1.84, 95% CI: 1.27-2.65) than English; patients living in the least vs. most deprived neighborhoods (aPR 1.36, 95% CI: 1.24-1.50); and patients with adenocarcinoma (aPR 2.57, 95% CI: 2.18-3.03), other non-small cell lung cancer (NSCLC) (aPR 2.00, 95% CI: 1.65-2.45), or carcinoid (aPR 3.60, 95% CI: 2.96-4.37) than squamous cell carcinoma tumors. Patterns of never smoking associated with sociodemographic, but not clinical factors, differed by sex. The higher prevalence of never smoking associated with Asian/Pacific Islander race/ethnicity was more evident among females (aPR 3.30, 95% CI: 2.95-3.74) than males (aPR 2.25, 95% CI: 1.92-2.65), whereas the higher prevalence of never smoking associated with living in the least deprived neighborhoods was more evident among males (aPR 1.93, 95% CI: 1.56-2.38) than females (aPR 1.18, 95% CI: 1.06-1.31). Associations between primary language and never-smoking status were found only among females. Overall and sex-specific prevalence and association patterns differed between Asian/Pacific Islander and non-Hispanic white patients.

CONCLUSIONS

Our findings suggest that patterns of never-smoking status associated with sociodemographic and clinical characteristics are different across sex and race/ethnicity among patients with lung cancer. Such data are critical to increasing awareness and expediting diagnosis of this disease.