Pretreatment Cognition Associated with Lung Cancer Survival

By Annette M. Boyle

CHICAGO—Among geriatric patients with advanced nonsmall cell lung cancer, pre-treatment cognition provides crucial information for "prognostication, decision making, and treatment planning," according to researchers at the San Francisco VAMC and their colleagues.

The team presented results of a study on factors that affect survival in metastatic nonsmall cell lung cancer on June 3 at the 2019 American Society of Clinical Oncology Annual Meeting in Chicago.[1]

The aging U.S. population and quickly evolving treatment recommendations makes predicting survival in older adults with advanced NSCLC critical to informed decision-making when discussing chemotherapy, immunotherapies and new targeted therapies.

The researchers conducted a prospective cohort study of 51 patients age 65 or older with advanced NSCLC who were initiating a new noncurative systemic treatment with a chemotherapy immunotherapy or targeted therapy. Patients came from three settings: a comprehensive cancer center, a VAMC and a safety-net hospital.

The median age of patients was 73, and nearly all had metastatic cancer, either Stage IVA (39%) or IVB (59%). And 4 out of 5 had received previous therapy, with just over half having had chemotherapy, 47% radiotherapy, 35% targeted therapy, 22% immunotherapy and 19% surgery.

Patients completed a geriatric assessment of cognition, function, comorbidities, mood, social support and quality of life prior to beginning treatment. At baseline, 73% had an abnormal Montreal Cognitive Assessment score, with a median score of 23. More than one-third had abnormal Timed Up and Go of times of more than 13.5 seconds.

Median overall survival for the cohort was 12.5 months.

While univariable analysis indicated that Stage IVB disease, prior radiotherapy, worse cognition scores and longer Timed Up and Go times were associated with overall survival, on multivariable analysis, only the cognition score was a statistically significant prognostic factor. A lower score on the Montreal Cognitive Assessment increased the risk of death 15%.

The researchers "found that abnormal pretreatment cognition is very common and an important prognostic factor among older adults with advanced NSCLC. Pretreatment

screening for cognitive impairment should be considered to inform prognostication, decision making, and treatment planning."

1. Wong M, Miaskowski C, Smith AK, Boscardin J, Cohen HJ, et al. Prognostic factors among older adults with advanced non-small cell lung cancer: A multisite cohort study. *J Clin Oncol 37*, 2019 (suppl; abstr 11540).