Chemotherapy and radiation given together could help elderly patients with lung cancer live longer

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Despite more than two-thirds of lung cancer cases being diagnosed in people 65 years or older, there have been few trials of treatments in this age group, and it is not known if the standard treatment for patients with inoperable non-small-cell lung cancer (NSCLC)—combined chemoradiotherapy—is suitable for elderly patients. However, new research published Online First in The *Lancet Oncology* shows that giving a daily low-dose of the chemotherapy drug carboplatin at the same time as radiotherapy significantly prolongs survival in elderly patients compared with radiotherapy alone.

"[Until now] evidence supporting standard treatment with concurrent chemoradiotherapy was from clinical trials in which elderly, especially frail elderly patients, were under-represented"*, explains Shinji Atagi from Kinki-chuo Chest Medical Center, Osaka, Japan who led the research. "This trial is the first to show that combined radiotherapy can safely improve outcome of stage III NSCLC in elderly patients."

The Japan Clinical Oncology Group 0301 trial randomly assigned 200 patients aged 71 years or older with inoperable NSCLC to chemoradiotherapy (with carboplatin that is known to have a more favourable toxicity profile in elderly patients) or radiotherapy alone.

Results showed that patients given combined chemoradiotherapy were nearly a third less likely to die than those given radiotherapy alone at a

median follow-up of 19.4 months (overall survival 22.4 vs 16.9 months).

Although chemoradiation was well tolerated more than half of patients experienced grade 3-4 toxic effects including leucopenia and neutropenia, compared with none in the radiotherapy-alone group. Infections were also more common with chemoradiotherapy, but most were manageable with treatment.

The authors conclude: "Combined treatment is feasible and tolerable in elderly patients with locally advanced NSCLC and should be considered for this population."

In an linked Comment, Juan Wisnivesky from Mount Sinai School of Medicine, New York and Gary Strauss from Tufts Medical Center, Boston caution: "The unexpectedly large survival advantage for concurrent chemoradiation raises concerns about the representativeness of the sample of elderly patients…and the results might not be valid for the broader population of older patients with stage III NSCLC…Additional validation of the present findings is needed before concurrent chemoradiation can be considered standard of care in elderly patients."

More information: Study online: www.thelancet.com/journals/lan … (12)70139-0/abstract

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