

# High-intensity chemotherapy does not improve survival in small cell lung cancer

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Small cell lung cancer (SCLC) patients treated with high-dose chemotherapy did not have better survival rates than those treated with standard doses, according to a randomized controlled trial published online April 8 in the *Journal of the National Cancer Institute*.

SCLC accounts for nearly 13 percent of lung cancer cases in the United States. Although many patients with SCLC initially respond to chemotherapy, most suffer disease recurrence relatively quickly. Laboratory data suggest that increasing the dose of chemotherapy agents kills SCLC cells that were resistant to standard doses, and thus might improve patient survival.

To test this possibility, Serge Leyvraz, M.D., of the University Hospital in Lausanne, Switzerland, and colleagues enrolled 140 patients with SCLC in a randomized trial that compared high-dose and standard-dose chemotherapy. Both groups were treated with the same chemotherapy agents, ifosfamide, carboplatin, and etoposide (ICE).

The 3-year survival rates in the two arms were similar, with 18 percent of patients in the high-dose arm and 19 percent of patients in the standard-dose arm still alive. Additionally, a similar fraction of patients in both arms showed tumor shrinkage in response to therapy—78 percent in the high-dose arm and 68 percent in the standard-dose arm, which was not a statistically significant difference.

"The approach explored in the present trial succeeded in raising the peak

dose, total dose, and dose intensity of ICE by threefold but has clearly been ineffective and highly toxic," the authors write. "As a result, this strategy should be abandoned."

In an accompanying editorial, Paul A. Bunn Jr., M.D., agrees with that assessment and emphasizes that other avenues of therapy should now be explored. "The declining incidence of SCLC and the lack of progress seem to have dampened the enthusiasm of funding agencies and industry for exploring novel therapies. This is indeed unfortunate because SCLC remains a common cancer in both the developed and developing world," Bunn writes.

Source: Journal of the National Cancer Institute

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