



The 10 best recent articles in the medical literature relating to lung cancer are reviewed here.

TEN BEST READINGS ON LUNG CANCER

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Peiterman RM, van Putten JW, Meuzelaar JJ, et al. Preoperative staging of non-small cell lung cancer with positron-emission tomography. *N Engl J Med.* 2000;343:254-261.

In a prospective study of 102 patients with resectable non-small-cell lung cancer, "standard staging" approach was compared with one involving PET to detect metastases in mediastinal lymph nodes and distant sites. PET was found to improve the rate of detection of local and distant metastases.

Bonomi P, Kim K, Fairclough D, et al. Comparison of survival and quality of life in advanced non-small-cell lung cancer patients treated with two dose levels of paclitaxel combined with cisplatin versus etoposide with cisplatin: results of an Eastern Cooperative Oncology Group trial. *J Clin Oncol.* 2000;18:623-631.

In this phase III randomized trial, the paclitaxel plus cisplatin regimens yielded superior median and one-year survival when compared to the previous standard cisplatin plus etoposide chemotherapy. On the basis of this trial, the cisplatin and paclitaxel arm was chosen to be the reference arm in the recently concluded ECOG 1594 trial.

Pisters KM, Ginsberg RJ, Giroux DJ, et al. Induction chemotherapy before surgery for early-stage lung cancer: a novel approach. Bimodality Lung Oncology Team. *J Thorac Cardiovasc Surg.* 2000;119:429-439.

Induction chemotherapy was found to be feasible, and it also

yielded high response rates and an estimated one-year survival rate of 85%. A phase III trial using this approach compared to surgery alone is currently underway.

Ranson M, Davidson N, Nicolson M, et al. Randomized trial of paclitaxel plus supportive care versus supportive care for patients with advanced non-small-cell lung cancer. *J Natl Cancer Inst.* 2000;92:1074-1080.

This study confirms data from other studies. Chemotherapy improves survival and quality of life in patients with advanced non-small-cell lung cancer.

Fossella FV, DeVore R, Kerr RN, et al. Randomized phase III trial of docetaxel versus vinorelbine or ifosfamide in patients with advanced non-small-cell lung cancer previously treated with platinum-containing chemotherapy regimens. The TAX 320 Non-Small Cell Lung Cancer Study Group. *J Clin Oncol.* 2000;18:2354-2362.

The addition of docetaxel improved one-year survival and provided clinically meaningful benefit for patients with advanced NSCLC who have failed a platinum-containing regimen. This trial is substantiated by another phase III randomized trial where docetaxel was compared with best supportive care in patients with multiply-treated advanced NSCLC. Both trials underscore the utility of second-line chemotherapy in advanced NSCLC.

Noda K, Nishiwaki Y, Kawahara M, et al. Randomized phase III study of irinotecan (CPT-11)

and cisplatin versus etoposide and cisplatin in extensive-disease small-cell lung cancer: Japan Clinical Oncology Group Study (JCOG9511). *Proc Annu Meet Am Soc Clin Oncol.* 2000;19:1887. Abstract.

Compared to cisplatin plus etoposide, the current standard approach for extensive-stage small-cell lung cancer, cisplatin and CPT-11 showed a significant improvement in median survival (420 days vs 300 days). If these data are confirmed, cisplatin and CPT-11 may become the future “standard chemotherapy” for extensive-stage small-cell lung cancer.

Wang WL, Healy ME, Sattler M, et al. Growth inhibition and modulation of kinase pathways of small cell lung cancer cell lines by the novel tyrosine kinase inhibitor STI571. *Oncogene.* 2000;19:3521-3528.

In this study, *abl* tyrosine kinase activity inhibitor STI571 (Gleevec) was shown to inhibit growth of small-cell lung cancer cell lines through a mechanism that involves the inactivation of the *c-kit* tyrosine kinase. This and other studies laid the groundwork for clinical trials with STI571 in small-cell lung cancer that are currently underway.

Dresler CM, Fratelli C, Babb J, et al. Gender differences in genetic susceptibility for lung cancer. *Lung Cancer.* 2000;30:153-160.

Genetic polymorphisms of specific tobacco-related carcinogen-detoxifying enzymes have been shown to confer increased risk of lung cancers in smoking

women compared with men. These polymorphisms have also been shown to increase the risk of lung cancers in nonsmoking women.

Henschke CI. Early lung cancer action project: overall design and findings from baseline screening. *Cancer.* 2000;89:2474-2482.

This article reports the findings of a single breath-hold helical CT screening trial of 1,000 individuals 60 years of age or older with a smoking history of more than 10 pack-years or more. Probabilities of finding a malignancy according to the size of the pulmonary nodule and cost per life-year saved are also reported.

Rusch VW, Giroux DJ, Kraut MJ, et al. Induction chemoradiation and surgical resection for non-small cell lung carcinomas of the superior sulcus: results of Southwest Oncology Group trial 9416 (Intergroup trial 0160). *J Thorac Cardiovasc Surg.* 2001;121:472-483.

Compared with historical controls, induction chemoradiation improved resectability and survival in mediastinoscopy negative T3-4 tumors of the superior sulcus.