



multidisciplinary setting. For stage IIIB disease, surgery may rarely be indicated for some T4N0-1M0 tumors. A malignant pleural effusion precludes resection. Combined and ideally concurrent chemotherapy and radiation therapy is preferable to radiation therapy alone for patients with stage IIIB disease (grade 1A). For stage IV disease, chemotherapy is recommended because it improves survival and provides palliation for symptoms (grade 1A).

Targeted molecular therapies are emerging as effective lung cancer treatment. Bevacizumab, a humanized monoclonal antibody against vascular endothelial growth factor (VEGF), improves survival when added to a standard platinum-based chemotherapeutic regimen for patients with nonsquamous NSCLC (grade 1A recommendation). However, it was associated with hemoptysis, which was sometimes fatal, in patients with squamous cell carcinoma in an early-stage trial. Erlotinib and gefitinib, tyrosine kinase inhibitors that target the activity of the epidermal growth factor receptor (EGFR), are approved for the first-line treatment of metastatic NSCLCs that have EGFR mutations (grade 1A). Targeting the EGFR seems to have benefit in particular patient groups, such as women, never-smokers, and Asians who harbor these particular receptor mutations.

Small Cell Lung Carcinoma

Most SCLCs are treated with chemotherapy, and common regimens are four to six cycles of platinum-based chemotherapy (cisplatin or carboplatin) plus etoposide or irinotecan (grade 1A recommendation). Thoracic external beam radiation therapy may be useful if disease is limited (grade 2C). Occasionally, SCLCs can be resected if no evidence of metastasis is found (grade 2C). Although chemotherapy and radiation therapy often produce a dramatic response and sometimes are curative for limited disease, relapse is typical, and subsequent treatments usually are less effective.

PROGNOSIS

The Surveillance, Epidemiology, and End Results (SEER) database, which contains more than 31,000 cases, was used to validate the 2010 TNM staging system, and it provides the most robust prognostic information for lung cancer. Despite persistent

advances in the understanding of the biology of lung cancer and the introduction of novel chemotherapeutic agents for its treatment, the overall 5-year survival rate for patients with lung cancer is 15%. Most patients with lung cancer are diagnosed during the advanced stages of the disease, when surgical resection is less likely to be curative.

Non-Small Cell Lung Carcinomas

Patients with stage IA NSCLC have a median survival of 59 months. The median survival for stage IV disease is only 4 months. Approximately 40% of patients experience a recurrence, with a median time to recurrence after surgery of 11.5 months. Average survival after recurrence is about 8 months.

Small Cell Lung Carcinoma

Patients with limited-stage SCLC at the time of presentation have a median survival of 15 to 20 months and a 5-year survival rate of 10% to 13%. Unfortunately, most patients are diagnosed with extensive disease at the time of clinical presentation. Median survival for these patients is only 8 to 13 months, and the 5-year survival rate is 1% to 2%.

SUGGESTED READINGS

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