Radiation therapy alone in early stage non-small cell lung cancer.

Among the patients with early stage (I/II) non-small cell lung cancer (NSCLC), there are those who, due to medical comorbidities, advanced age, or refusal, never undergo surgery. For them, exclusive radiation therapy (RT) has been the treatment of choice, achieving median survival times of 30 months and 5-year survival of up to 42%. Doses of $\geq 65$ Gy with standard fractionation (or its radiobiological equivalent when altered fractionation is used) are necessary for long-lasting local control of the disease, with smaller tumors having a more favorable prognosis. The issue of elective nodal irradiation (ENI) remains controversial, since failure patterns identified local failure as the predominant pattern. None of the potential pretreatment patient- and tumor-related prognostic factors has been shown to clearly influence survival. Toxicity is generally mild to moderate, although high doses (e.g., 80 Gy) may carry a risk for an excessive rate of side effects. Conformal treatment and consideration of comorbidities such as altered lung function may be essential, since simultaneous supportive treatment of acute sequelae (mainly acute esophagitis) is necessary. RT is an effective treatment modality in technically operable, but medically inoperable patients with early stage NSCLC and offers a long-lasting cure.