

## Wedge resection and radiofrequency ablation for stage I nonsmall cell lung cancer

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### Abstract

The main aim of this study was to compare radiofrequency ablation (RFA) and wedge resection in terms of disease recurrence and survival, as intent-to-treat therapy for stage I nonsmall cell lung cancer (NSCLC) in marginal or non-surgical candidates.

121 high-risk patients, treated for stage I NSCLC with wedge resection (n=59) or RFA (n=62) in a 7-year period, were analysed. Age, sex, comorbidity score, performance status, forced expiratory volume in 1 s and forced vital capacity values, body mass index, T-stage and histology were evaluated as possible risk factors affecting disease recurrence and survival.

At a median follow-up of 36 and 42 months for wedge resection and for RFA (p=0.232), local recurrence rate was 2 and 23%, respectively (p=0.002). The 1-, 2- and 5-year overall survival (disease-free interval) rates were 100% (96%), 96% (90%) and 52% (76%) for wedge resection, and 93% (87%), 72% (63%), and 35% (55%) for RFA (p=0.044 and p=0.01, respectively). None of the analysed parameters was found to be risk factor for disease recurrence and survival, except stage T2, which significantly affected disease-recurrence, overall and cancer-related survival and disease-free interval in the RFA group.

Whenever possible, surgical resection, even if limited, should be preferred due to its higher disease control and survival rates. RFA can be considered a valid option for inoperable patients, especially for those with stage T1N0.