

## Combined Local therapy with EGFR-TKIs in patients with EGFR mutated advanced NSCLC: A meta-analysis

부산대학교 의과대학 내과학교실<sup>1</sup>

성하영<sup>1</sup>, \*엄중섭<sup>1</sup>

**Background/Aims:** This meta-analysis analyzed the efficacy and safety of additional local therapy before disease progression in patients with advanced non-small cell lung cancer (NSCLC) during first-line epidermal growth factor receptor-tyrosine kinase inhibitors (EGFR-TKIs) treatment.

**Methods:** Pubmed, Embase, and Cochrane Library were searched. Studies comparing a group combined local therapy with first-line EGFR-TKIs to a group receiving first-line EGFR-TKIs monotherapy in advanced NSCLC were included. The primary endpoints were progression-free survival (PFS) and overall survival (OS). The hazard ratios (HRs) of median PFS and OS were used to calculate pooled HRs. Pooled risk ratio (RR) was estimated to adverse events.

**Results:** A total of 11 studies encompassing 1313 patients were included. Surgery, radiotherapy, and ablation techniques (27%, 91%, and 27% of studies) were used as local therapy. Pooled HRs of PFS and OS were 0.34 (95% CI, 0.22-0.53;  $P < 0.001$ ) and 0.42 (95% CI, 0.36-0.48;  $P < 0.001$ ), indicating a significant benefit favoring the local therapy combination, respectively. Pooled RR of adverse events was 1.20 (95% CI, 0.73-1.96;  $P = 0.47$ ), showing no significant difference between local therapy combination and EGFR-TKIs monotherapy.

**Conclusions:** This study has identified that additional local therapy before disease progression in patients with advanced NSCLC during first-line EGFR-TKIs treatment leads to favorable outcomes. We suggest that the combined local therapy with EGFR-TKIs may reduce tumor burden, potentially reducing resistance to EGFR-TKIs and enhancing their efficacy.

