

# First-Third generation EGFR inhibitor combined with cytotoxic chemotherapy in elderly Patients with advanced lung adenocarcinoma in routine clinical practice-results from A Subgroup Analysis

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## Abstract

Abstract In this study,we investigated a the combination of osimertinib/ gefitinib/ erlotinib with cytotoxic chemotherapy for EGFR-mutated positive lung adenocarcinoma patients in long-term survival outcomes. Method We enrolled IIb-IV stage lung adenocarcinoma patients,Patients receiving standard Osimertinib,Gefitinib,Erlotinip alone treatment and Osimertinib,Gefitinib and Erlotinip with cytotoxic chemotherapy were retrospectively reviewed. Result First generation Chemical-TKItherapy PFS vs First generation TKI therapy alone PFS. $P < 0.05$ .Mean Survival Time(MST)22.00 month VS 16.00.OS  $P < 0.05$ . MST 32.00 month VS 28.00.Third generation Chemical-TKItherapy PFS vs Third generation TKI therapy alone PFS. $P < 0.001$ .MST 40.00 month VS 26.66. OS  $P < 0.05$ .MST 48.00 month VS 36.00.First-Third generation Chemical-TKItherapy PFS vs First-Third generation TKI therapy alone PFS. $P < 0.001$ . (MST)28.00 monthVS 17.00.OS  $P < 0.001$ .MST 41,00 month.VS 29.00.Cox regression models showed a significant prognostic factors for OS were old age (55-69 years) (HR 0.49 [0.28–0.89],  $p < 0.02$ ) and gene mutation (Positive) (HR 0.15 [0.07–0.29],  $p < 0.05$ ),First add third generationTKI with chemicaltherapy (HR 0.56 [0.35–0.89],  $p < 0.02$ ). Conclusion The results obtained under real-life conditions add to our understanding of the benefits and risks of First-Third generation EGFR inhibitor combined with cytotoxic chemotherapy in routine clinical practice.

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