



SURVIVAL OUTCOMES OF ALK POSITIVE NSCLC PATIENTS

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Objective:

Introduction: anaplastic lymphoma kinase (ALK) gene rearrangements are present in a small subset of non-small-cell lung cancers what gives patients better survival outcomes.

Methods: We analyzed the data of the patients diagnosed with advanced stage ALK positive NSCLC in University hospital center Zagreb, Department for pulmonary diseases from January 2018 until December 2020.



Results: In observed period of time 64 patients were treated with ALK TKIs. 29 patients were treated with crizotinib in the first line and 27 of them progressed at the time of data cut off and 25 received alectinib in the second line, while one patient was treated with brigatinib. 35 patients were treated with alectinib in the first line. In the third line setting 10 patients were treated with brigatinib or lorlatinib. ALK TKIs were administered in the first line setting in 44 patients, in the second line setting in 14 patients and some patients were treated in the third, fourth and even fifth line (2, 3 and 1, respectively). There were 35 (55%) females with median age of 65 years (36-82). Almost half of them (43%) were current or ex-smokers with median pack/years 26.9 (2-75). Diagnosis was established by cytology specimens in 18 (27%) and by histology specimens in 46 (73%) patients. We observed median overall survival for all treated patients (mOS) of 47 months (95%CI 21.6-72.3), while mOS for patients treated with alectinib in the first line was not reached. Median progression-free survival (mPFS) was 12 months (95%CI 6,2 -14,7), but divided by TKIs - for crizotinib was 8 months (95% CI 5,1 - 10,8) and for alectinib it was not reached. mPFS2 for alectinib is 12 months (95%CI 2,3 - 21,6).

Conclusion: We present real-life data of survival outcomes associated with sequencing of different ALK TKIs. Survival outcomes of different ALK inhibitors are well proven in controlled clinical trials. Our data suggest that treatment with alectinib in the first line gives better survival benefit than earlier generation ALK TKIs. Given the significant advances regarding availability of new therapeutic options, these data represent a significant baseline for further investigation and comparison.