(42.9 vs 36.3 mos; HR = 0.58, 95% CI: 0.34 – 0.98, p = 0.042), ECOG PS 0/1 vs 2 (44.4 vs 18.4 mos; HR = 0.23, 95% CI: 0.12 – 0.44, p < 0.001) and absence of baseline brain metastases (44.5 vs 22.9 mos; HR = 0.59, 95% CI: 0.35 – 0.97, p = 0.04). Multivariate analysis, adjusted for age, sex, smoking status and ECOG PS, showed that over young age (< 65) and good ECOG PS (0/1), the number of the metastatic sites (< 3 vs ≥ 3) (54.1 vs 36.3 mos; HR = 0.58, 95% CI: 0.34 – 0.98, p = 0.045) and the use of RT for oligoprogression/palliative management (48.4 vs 36.3 mos; HR = 0.58, 95% CI: 0.35 – 0.95, p = 0.033) were significantly associated with prolonged OS. Median IC-PFS was 40 (23.6 – 56.3) mos. Pts without baseline brain metastases reported a significantly longer IC-PFS (55.0 vs 17.3 mos, IC95% HR 0.51, p = 0.029).

Conclusions: In this broad real-world population, the clinical benefit was consistent with a 5-year survival of 21%. The absence of brain metastases, the use of palliative RT and the tumour burden resulted as independent positive prognostic factors associated with a statistically significant improvement of prolonged survival. Based on these findings, clinicians can gain an enhanced estimation of long-term outcomes in this population.

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144P Clinical and treatment features associated with improved 5-year survival rate in ALK-positive lung cancer treated with ALK-TKIs

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Background: ALK rearrangement predicts for prolonged survival in pts with metastatic NSCLC treated with ALK TKIs. Long-term survival, however, remains undefined in a real-world population. The objective of this study was to determine the 5-years survival in these patients and identify clinical factors associated with OS improvement.

Methods: Pts with ALK-rearranged metastatic NSCLC who had been treated with ALK TKIs at European Institute of Oncology between 2013 and 2018 were retrospectively reviewed and analyzed for efficacy outcomes.

Results: Among 105 pts, mPFS and mOS were 13.6 mos (95% CI: 9.8 – 17.3) and 40.4 mos (95% CI: 33.6 – 47.1), respectively. 5-year survival rate was 21%, and more than half of overall pts population (51.4%) were treated with different ALKis for more than 3 yrs. The 55.2%, 42.8% and 2% of pts received one, two or three TKIs, respectively. In 99 pts, crizotinib was the first ALKi used with a mPFS of 13.6 (9.8 - 17.3) mos. Univariate analysis showed a positive correlation between mOS and age (< vs ≥ 65 yrs)