Clinicopathological characterization of NGS detected mutations in lung cancers – a single center experience

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Background
Despite many advances in molecular pathological procedures and improved clinical outcomes, in advanced disease but also as adjuvant therapies, many NSCLC patients do not receive full panel testing.

Methods
In this retrospective analysis, we used results from NGS testing of 154 patients with adenocarcinoma (AC) or squamous-cell carcinoma (SCC) treated at LMU university hospital Munich between 2018 and 2021. We compared different clinicopathological features and patients’ baseline characteristics with results of NGS testing. We used t-test and ANOVA to compare metric variables and Chi2-test and Fisher’s Exact test to compare categorical variables.

Conclusion
Mutation profiles differed by histological type and metastases status, and were significantly associated with PD-L1 expression. KRAS and EGFR mutations in SCC were more common than previously reported. These results might help identify patients who are more likely to harbor a treatable mutation and can help physicians plan diagnostics especially when tissue material is limited.

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Table: frequency of mutations by gender

- male
- female

Figure: Clinicopathological characterization of NGS detected mutations in lung cancers – a single center experience

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