

# CASE 066

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**ACKNOWLEDGEMENT:** Akash.

**TITLE:** Concomitant EGFR and BRAF mutation in lung adenocarcinoma and its therapeutic relevance.

## INTRODUCTION:

A 47-year-old female non-smoker patient, presented with metastatic lung adenocarcinoma.

A linear core biopsy tissue was sent for molecular evaluation.

## HISTOLOGICAL AND IMMUNOHISTOCHEMISTRY EVALUATION:

Section examined showed fragments of lung parenchyma infiltrated by neoplastic cells arranged in the form of acini and glands with cells showing nuclear pleomorphism, hyperchromatic nuclei and scant eosinophilic cytoplasm. Lymphovascular invasion was present. Mitoses were brisk.

PDL1 (22C-3, DAKO) showed a TPS of <1%.

## MOLECULAR EVALUATION:

The tumor cell content was 70% as per the evaluation of the H & E stained slide. The DNA and RNA extracted from the FFPE blocks were analyzed for clinically relevant genomic alterations (SNVs, indels and fusions) within the 5 targetable genes EGFR, ALK, ROS, MET and BRAF by Next generation sequencing, to decide the eligibility of the patient for targeted therapy.