The diagnostic evolution and treatment strategies in lung cancer have revolutionized in the last decade. As per the present—day guidelines, molecular profiling should be done at the time of initial diagnosis, however seldom it is not conducted or there is delay in the diagnostic journey following which there is set back in treatment. (1) EGFR TKIs as first line therapy for patients with NSCLC having targetable EGFR driver mutation has proved to be the significant paradigm shift in the treatment of advanced lung cancer over the last decade. (2) However, there is a lot of gap between the newer developments and the number of patients who can avail these, especially in developing countries. We present one such study which highlights the need to improve the diagnostic journey and mutational data of the patients to avail of these target therapies.(1) Developing strategies to improve the diagnostic journey and for patients to avail of these target therapies.(1)

Aims & Objective

1. To assess overall survival period and progression free survival period
2. To assess the delay in molecular profiling done in the diagnostic journey and mutational data of the patient
3. To assess the treatment pattern with respect to Targeted therapy and Immunotherapy
4. To assess the gap between developments in novel molecular test, treatments and the number of patients who can avail these

Methods

This retrospective study utilized the records of 240 patients registered at a chain of oncology centres from 2018-2021. The data was obtained from EMR and patient’s demographics, disease features, mutation profiling, treatment pattern and survival data were analysed.

Inclusion & Exclusion Criteria

Inclusion criteria were:
1. Age 20 years and above
2. Either of the gender
3. Cases of primary Lung Cancer
4. Cases of metastatic, Adjuvant, Metastatic set up
5. With Medical records
6. Known survival status

Exclusion criteria were:
1. Unknown survival status
2. Either of the gender
3. Without medical records

Results

A total of 475 patients of lung cancer were evaluated and 240 patients who met the inclusion criteria were analysed for the study. Mean age was 62 ± 12.4 years and male: female ratio was 1.33:1. Most cases were metastatic (88.3%) at presentation and majority were adenocarcinomas 86.25%. Mutation profiling was done for 80.83% and 52.57% were found to be mutated, 67.5% had base line testing and 13.33% were tested at later lines. EGFR testing was done in 80.41% and full panel testing (EGFR, ALK, ROS, MET) was done in 18.75%. The EGFR, ALK, ROS and MET positivity rates were 42.48%(82/193), 9.37%(15/160), 8.10%(9/111) and 11.11% (5/45) respectively. Similarly, PDL-1 testing was done in 27% (65/240) and 18.46% (12/65) tested positive. 11.11% (5/45)respectively. Similarly, PDL-1 testing was done in 27% (65/240) and 18.46% (12/65) tested positive. 11.11% (5/45) respectively. Similarly, PDL-1 testing was done in 27% (65/240) and 18.46% (12/65) tested positive.

Discussion

The presence of any mutation in NSCLC leads to better prognosis and the positivity rates for these mutations are higher in Indian population. However, these tests are done only in 2/3rd of the patients at baseline and factors such as awareness of patient and healthcare professional, cost efficiency and availability of tertiary care setup may be the roadblocks to provide the best quality care in western India.

Conclusions