BACKGROUND

Lung cancer is the leading cause of cancer-related deaths in both males and females. The demographic landscape has shifted dramatically in recent decades. The increasing interest in personalized medicine and the recognition of sex as a major influencing factor in disease behavior, has resulted in a greater emphasis on understanding gender differences. This study aims to analyze the different aspects of gender in lung cancer care in Europe and Asia.

METHODS

This study was conducted using Oncology Dynamics™, an IQVIA oncology cross-sectional survey collecting anonymized real-world patient-level data. In Q1 2022, IQVIA engaged 2583 investigators from Europe and Asia. Gender, age, clinical stage, oncogenic driver status, location of metastases, ECOG, and comorbidities were analyzed. A total of 18217 patients with Non-Small Cell Lung Cancer (NSCLC) were identified.

RESULTS

• The prevalence of NSCLC in females was slightly higher in Asia (40%) compared to Europe (38.5%).
• Females were younger and had more adenocarcinoma cases than males on both continents.
• The percentage of non-smokers was substantially higher in Asian females (87%) compared to males (20%) and the European population (F: 40%, M: 15%).
• Asia had more asymptomatic (ECOG 0) patients than Europe, possibly because most Asian patients had fewer pulmonary comorbidities.
• Most patients had metastatic disease at diagnosis. However, in Asia there was a higher proportion of localized disease (34.4%) compared to Europe (19.1%) regardless the sex; and early-stage disease was more frequent in males than in females in both regions.
• The frequency of brain metastases in Asian females was significantly higher (20%) than in Asian males (14%) and the European population (F: 16%, M: 10%).
• EGFR mutation was the most common oncogenic driver in both genders, but its prevalence was higher in Asian females. The deletion in exon 19 was the most prevalent across both continents and genders. However, we also report a high occurrence of L858R mutation among Asian subjects (F: 38.9%, M: 41.8%).

CONCLUSIONS

• This research highlights the differences in cancer staging between Asian and European patients.
• Asian and European lung cancer patients differ in terms of risk factors, demographics, clinical presentation, and tumor biomarkers. These ethnic differences should be considered when designing and conducting global clinical trials.
• Reporting sex-based differences in pivotal clinical trials will help address existing gender disparities in lung cancer and determine whether NSCLC can be considered a separate disease in women.