



Lung cancer in women

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Lung cancer has been considered a typical male disease for a long time. However, for over a few decades, epidemiological data have been showing that this is not the case. In fact, while the incidence of lung cancer is decreasing worldwide, mainly due to the decreased incidence in men in recent generations, epidemiologists are seeing a steady 80% increase in women over the same period. Lung cancer in women has specific characteristics that distinguish it from that of men. It is likely that different lifestyle habits, environment conditions and/or biological features, expose women to a greater risk of developing lung cancer at a slightly younger age, predominantly an adenocarcinoma histology and often unrelated to smoking.

Certain molecular aberrations are more common among women: epidermal growth factor receptor (EGFR) mutation is more common in women and non-smokers; Kirsten rat sarcoma viral oncogene homologue gene (KRAS) alteration appears to be detected more frequently in women's lung cancers than in men's. In addition, some recent research suggests that women with lung cancer respond differently to immunotherapy compared to men.

Furthermore, the prognosis and the 5-year survival rates are always higher in women than in men at all stages of the disease and this underlies the importance of gender as a prognostic factor.

All the data mentioned above arise from epidemiological studies, retrospective data and subgroup analyses of randomized trials. Despite they consistently suggest the existence of two pathologies strongly influenced by gender, no prospective study has been conducted so far.

The present volume aims at underlying, once again, the importance of placing gender at the center of our observations and strategies in order to undertake a real path

of precision medicine.

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