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Making Sense of Immunotherapy in Lung Cancer: What the Pulmonologist Needs to Know?

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Abstract

Purpose of Review

The landscape of lung cancer therapy has completely shifted in the last decade. From the surge of targeted therapy to the resurrection of immunotherapy, the need for adequate lung tissue specimen is critical to evaluate tumor specimens for predictive biomarkers for both types of therapies, hence, the importance of obtaining several samples via endoscopic bronchial ultrasound performed by pulmonologists or thoracic surgeons. Moreover, these novel therapies have also been associated with respiratory side effects which will require prompt evaluation and aggressive management by pulmonologists, oncologists, and intensive care unit personnel.

Recent Findings

Pneumonitis is commonly coined to refer to interstitial lung disease. It is a side effect from checkpoint inhibitors, a type of immunotherapy, which has proved overall survival advantage in lung cancer patients in different clinical settings: first- and second-line therapy for metastatic non-small cell lung cancers as well as for locally advanced disease after being treated with concurrent chemoradiation. Thus, the number of patients who will be exposed to these agents is considerable, and we should expect to see an increased management of this autoimmune phenomenon as well as others.

Summary

The mechanism of checkpoint inhibitor-induced pneumonitis is not well understood yet, but its management is like that of other autoimmune complications that affect the lung parenchyma. Prompt recognition is critical to avoid a fatal outcome.

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Ethics declarations

Conflict of Interest

Edgardo Santos reports speaker bureau fees from Genentech, Merck, Astrazeneca, Takeda, Novartis, Pfizer, Boehringer-Ingelheim, Celgene, and Lilly. Luis Raez reports research grants from Merck, BMS, Genentech, Astrazeneca, and Syndax. Christian Rolfo reports speaker bureau fees from Merck Serono (MSD). Moises Harari and Lilibeth Castellero declare no conflicts of interest.

Human and Animal Rights and Informed Consent

This article does not contain any studies with human or animal subjects performed by any of the authors.

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