Editorial
Volume 11:02, 2022

Journal of Integrative Oncology

ISSN: 2329-6771 Open Access

An Editorial on Non-small Cell Lung Cancer

Karthik Suresh*

Hollings Cancer Center, Medical University of South Carolina, Charleston, SC, USA

Editorial

Lung cancer is the most common cause of cancer-related death. Adenocarcinoma, squamous carcinoma, big cell carcinoma (often referred to as non-small cell lung cancer), and small cell lung cancer are among the histologic subtypes. We now have a better knowledge of the cellular origins and molecular pathways involved in each of these subtypes because to comprehensive molecular characterization of lung cancer. Many of these genetic changes are potential therapeutic targets for which medications are being developed all the time. The molecular characteristics of the primary lung cancer subtypes are discussed in this article, as well as current guidelines and novel targeted therapies, such as checkpoint immunotherapy. Immune checkpoint inhibitors (ICIs) are novel immunotherapy-based medications that have been found to prolong life in advanced non-small cell lung cancer patients (NSCLC). ICIs, unlike traditional chemotherapeutics, work by enhancing the body's own tumor-killing reaction. This one-of-a-kind method of action has, however, resulted in the discovery of class-specific adverse effects. These toxicities, known as immune-related adverse events, can impact many organ systems, including the lungs. Checkpoint inhibitor pneumonitis (CIP) is an immune-mediated lung damage that occurs in roughly 3% to 5% of patients who receive ICIs; however, the real-world prevalence of this entity may be higher, especially now that ICIs are being utilised in nonclinical trial settings. The biology of ICIs and the indications for ICI usage in NSCLC are briefly discussed in this review, followed by the epidemiological, clinical, and radiologic symptoms of CIP. Following that, we go over CIP management options, including the current agreement on steroid-refractory CIP management. We emphasise areas of uncertainty and potential research challenges in the expanding field of checkpoint inhibitor pulmonary toxicity, given the subject's embryonic nature. Immunotherapy has been one of the most significant developments in the treatment of advanced tumours in recent years, with nonsmall-cell lung cancer (NSCLC) being one of the cancers to benefit most from it. Testing for programmed death ligand 1 (PD-L1) expression in tumour tissues is currently the only validated companion diagnostic test for first-line immunotherapy in metastatic NSCLC patients. However, not all patients respond to the specified screening criteria and immune checkpoint inhibitors in the same way (ICIs). Liquid biopsy is a noninvasive way to track disease progression in cancer patients and identify those who would benefit most from immunotherapy. The use of biopsy in the immunotherapy treatment of NSCLC patients is the subject of this review. CTCs, cell-free DNA (cfDNA), and exosomes are all potential candidates for generating novel biomarkers. We highlight how these characteristics are being used now and in the future to improve therapeutic decision-making and identify patients who will benefit the most from immunotherapy. The management of non-small cell lung cancer (NSCLC) has experienced a revolution in the last decade, with amazing breakthroughs in screening, diagnosis, and treatment. The development of molecularly targeted therapies, immune checkpoint inhibitors, and anti-angiogenic medicines has largely driven advancements in systemic treatment, all of which have dramatically improved patient outcomes. Updates in lung cancer screening, liquid biopsy, and immunotherapy in the front-line scenario will be discussed in this review. We review recent developments and highlight a slew of new molecular-targeted therapeutic approvals for NSCLC subgroups with sensitising EGFR, ALK, ROS1, RET, BRAF V600E, MET, and NTRK mutations [1-5].

References

1. Ettinger, David S, Wallace Akerley, Gerold Bepler and Matthew G. Blum, et al. "Non–small cell lung cancer." J Natl Compr Cancer Netw 8 (2010): 740-801.
2. Molina, Julian R., Ping Yang, Stephen D. Cassivi and Steven E. Schild, et al. "Non-small cell lung cancer: epidemiology, risk factors, treatment, and survivorship." In *Mayo clinic proceedings* 83 (2008): 584-594.
3. Macchiarini, P., Gabriella Fontanini, F. Squartini and C. A. Angeletti, et al. "Relation of neovascularisation to metastasis of non-small-cell lung cancer." *Lancet* 340 (1992): 145-146.
4. Wang, Meina, Roy S. Herbst, and Chris Boshoff. "Toward personalized treatment approaches for non-small-cell lung cancer." *Nat Med* 27 (2021): 1345-1356.
5. Li, Botai, Lili Zhu, Chunlai Lu and Cun Wang, et al. "circNDUFB2 inhibits non-small cell lung cancer progression via destabilizing IGF2BPs and activating anti-tumor immunity." *Nat commun* 12 (2021): 1-15.

How to cite this article: Suresh, Karthik. "An Editorial on Non-Small Cell Lung Cancer." J Integr Oncol 11 (2022): 365.

***Address for Correspondence:** Karthik Suresh, Hollings Cancer Center, Medical University of South Carolina, Charleston, SC, USA, E-mail: Ksuresh@montere.org*

Received 05 February, 2022, Manuscript No. jio-22-55105; **Editor assigned:** 07 February, 2022, PreQC No. P-55105; **Reviewed:** 11 February, 2022, QC No. Q-55105; **Revised:** 17 February, 2022, Manuscript No. R-55105; **Published:** 28 February, 2022, DOI: 10.37421/2329-6771.2022.11.365