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Role of imaging biomarkers in mutation-driven non-small cell lung cancer

Mendoza DP *et al.* Imaging biomarkers of mutated NSCLC

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Abstract

Lung cancer remains the leading cause of cancer-related deaths worldwide. The treatment of non-small cell lung cancer (NSCLC), which accounts for a vast majority of lung cancers, has shifted to personalized, targeted therapy following discoveries of several targetable oncogenic mutations. Targeting of specific mutations has improved outcomes in many patients. This success has led to several target-specific agents replacing chemotherapy as first-line treatment in certain mutated NSCLC. Several researchers have reported that there may be imaging biomarkers that may be predictive of the presence of these mutations. These features, when present, have the potential in triaging patients into the most appropriate diagnostic and treatment algorithms. Distinct imaging features and patterns of metastases that have been associated with NSCLC with various

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Purpose: To identify prognostic **imaging biomarkers** in non-small **cell lung cancer** (NSCLC) by means of a radiogenomics strategy that integrates gene expression and medical images in patients for whom survival outcomes are not available by leveraging survival ...

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Molecular Biomarkers in Advanced Non-Small-Cell Lung ...

<https://ascopubs.org/doi/full/10.1200/JOP.2017.022780>

Targeted therapies and immune checkpoint inhibitors are continuing to rapidly enter routine clinical practice in patients with advanced non-small-cell lung cancer (NSCLC). 1,2 These treatments usually are directed against tumor molecules that may also serve as biomarkers. Molecular biomarkers may provide important information on prognosis and allow the selection of patients for specific ...

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Non-Small Cell Lung Cancer

Non-small-cell lung carcinoma is any type of epithelial lung cancer other than small cell lung carcinoma. NSCLC accounts for about 85% of all lung cancers. As a class, NSCLCs are relatively insensitive to chemotherapy, compared to small cell carcinoma. When possible, they are primarily treated by surgical resection with curative intent, although chemotherapy has been used increasingly both pre-operatively and post-operatively.



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