

In the era of precision medicine and personalized therapy, interventional pulmonology has become an essential diagnostic, therapeutic and follow-up tool in lung cancer patient management and the improvement of more and more effective and safe techniques will allow even more precise approaches, particularly in case of advanced tumor stages that preclude surgical solutions. Furthermore, the multidisciplinary management of lung cancer disease has brought different lung specialists face to face to reach together the best approach for staging, diagnostic and therapeutic purposes, valuating chorally the most accurate and minimally invasive technique for patient care and benefit. Along this path, the use of conventional or EBUS-TBNA has grown up, maximizing both effective staging in early diseases and diagnostic yield for mediastinal advanced stages. On the other hand, transthoracic FNA or percutaneous biopsy can lead to a more precise diagnosis in peripheral parenchymal lesions being also useful for ablation of peripheral localizations in the control of oligo-metastatic tumor spread.

The great improvement of biomarker-driven personalized therapies in non small cell lung cancer has risen the need of tumor profiling looking for specific markers predictive of response to therapies, spurring requests by medical oncologists of biopsies and re-biopsies for molecular profiling assessment also along patient's treatment history. In this scenario tumor tissue has reached a fundamental role in diagnosis and therapy of advanced patients. In these cases, since the obtained diagnostic cytological or bioptical specimens are often the only available material is of utmost importance to plan tissue analyses that will guide the most adequate personalized patient treatment. All the immunohistochemical and molecular biomarkers could be tested in these small samples with efficient results, comparable to surgical tissues, to warrant adequate and precise tumor profiling reports.

Finally, interventional pulmonology could be useful also for therapeutic purposes in endobronchial obstructive lesions or tracheal stenosis. In this field, tacking advantage of endobronchial stents in conjunction with other endoscopic therapy, such as the modern cryoprobe, different situations can be solved, including ablation of benign and malignant neoplasms, ablation of granulation tissue, treatment of infections, nerve ablation for chronic pain, bronchoscopic biopsies and even cosmetic surgery.

In this book, a valuable collection of studies is put together to highlight major issues about interventional pulmonology, to make aware the reader throughout all relevant aspects of this fascinating discipline.

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