PREFACE

Lung cancer: an update on current and future diagnostic and treatment techniques

In our current work several authors from three different continents combined their expertise and knowledge to present the current status in diagnosis and treatment of lung cancer. Lung cancer diagnosis and treatment is an evolving field of knowledge and several scientific principals combine their assets. In an effort to improve current methods of diagnosis new equipment is introduced in the market and clinical practice. Moreover, new imaging techniques for tissue specimens are combined with interventional diagnosis in an effort to accomplish rapid on site evaluation of the specimens. Currently, new biomarkers are being investigated as an additional tool for interventional diagnosis, however, still this method is in its infancy. Rapid on site diagnosis of malignancy should be a future target which can only be achieved through a multidisciplinary approach of imaging techniques, biopsy equipment and biomarkers. Regarding treatment; New pathways have been identified in the genome of the tumor and novel drugs are being explored. Lung cancer treatment is being directed to targeted agents as non-specific cytotoxic agents induce severe side-effects. Although newly mutations of the tumor genome are constantly being discovered, still the number of patients remains low within each group of mutation. Additionally, targeted therapy agents also present cytotoxic effects. Future direction in the field of therapy should include the design of drugs that reach the primary lesion without inducing adverse effects. In this special issue we aimed not only to present the current techniques and treatment of lung cancer, but also comment and present additional future perspectives where possible. The special issue could be used as a textbook for the young scientists with interest in lung cancer, but also for the experts as a summary for ongoing new methods in several fields of lung cancer diagnosis and treatment. We hope that you enjoy reading this special issue as much as we enjoyed writing it.

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