

Endoscopic Ultrasound-Guided Transbronchial Needle Aspiration (EBUS-TBNA): A Practical Approach

Editors: S.E. Monaco, W.E. Khalbuss, L. Pantanowitz, Pittsburgh; Published by: S Karger AG, Switzerland; 2014; Hard Cover; Pages: XII + 136 pages, 172 figures (153 in colour), 38 tables; Price: (Hard cover) CHF128/EUR107/USD150, (Online) CHF154/EUR128/USD181; ISBN 978-3-318-02396-1; e-ISBN 978-3-318-02397-8

The diagnosis of mediastinal lesions by endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) is a novel application utilising fine needle aspiration. Evaluation of these with EBUS-TBNA is essential for answering important questions that are important for determining the next step in patient management especially having mediastinal and/or lung lesions. Although yield of tissue with EBUS-TBNA is small, yet it is important to understand how to interpret these specimens and implications of histopathology result on clinical decision-making. This book details clinical perspective of the procedure, technical aspects, and the cytomorphology of common and uncommon entities in addition to challenges and diagnostic pitfalls. There are 13 chapters and each chapter provides summary of highlights and diagnostic difficulties and challenges in multitude of full-colour high resolution images and has key references to the current literature in the field as well as quick reference tables and informative figures highlighting salient features. Chapter 1 introduces the subject of EBUS-TBNA to the readers. Highlights of this chapter include diagnosis and staging of lung cancer in tissue sample obtained through minimally invasive technique. It reassures that the technique is safe, cost-effective, utilises real-time image guidance and procures high-yield specimens. EBUS-TBNA is helpful in patients who are high risk candidates for surgery or who have pathological process that does not require surgery (lymphoma or infection). This chapter provides an account of diagnostic difficulties and challenges of this technique as it requires a greater degree of expertise and experience and it may not be universally available and can not be used to access all mediastinal lymph nodes. Samples obtained through this technique may have bronchial contamination and may yield no diagnostic results that require additional sampling. The chapter discusses low complication (bleeding, infection, pneumomediastinum and pneumothorax). This chapter highlights diagnostic difficulties for cytology due to variety of reasons including bronchial contamination, unfamiliarity with these specimens and cytology mimics. The chapter also emphasises challenge of implementation of EBUS-TBNA services.

Chapter 2 provides comparisons of EBUS-TBNA with other diagnostic modalities. Figure 1 of this chapter provides state-of-the-art schematic drawing that summarises the International Association for the

Study of Lung Cancer (IASLC) LN map and various approaches. It provides idea of accessibility of diagnostic lymphnodes (superior mediastinal lymph nodes, aortic lymph nodes, inferior mediastinal lymph nodes and N1 lymph nodes) by three procedures namely EBUS, EUS and mediastinoscopy.

Chapter 3 reviews thoracic and mediastinal anatomy in context of EBUS-TBNA, as knowledge of anatomy is crucial to the success of sampling tissue for cytology diagnosis.

Chapter 4 describes technical aspects of EBUS-TBNA procedure. Chapter's highlights include level 7 (subcarinal) lymph nodes as the best site for sampling, difficulty in paratracheal lymph node sampling and useful tips for successful sampling. This chapter also provides useful tips to several difficulties such as inadequate sampling, mis-identification of lymph node, fibrotic lymph nodes and necrotic lymph node, confounding of cytopathology interpretation due to bronchial contamination interpretation due to bleeding in patients on anticoagulants, appropriately identifying a vascular window. Table 2 of this chapter provides useful recommendation for optimising EBUS-TBNA procedure.

Chapter 5 describes indications and diagnostic performance of EBUS-TBNA. Three tables of this chapter beautifully summarise indication, sensitivity and specificity (in select studies) and cause of false-positive (rare) and false-negative (common) diagnoses.

Chapter 6 of this book details specimen collection and processing and emphasises this aspect (specimen collection, triage and processing) to be a cardinal component of the success of EBUS-TBNA procedure. It also provides importance of rapid-on-site-evaluation (ROSE) in EBUS-TBNA. Figures 1 and 2 of this chapter provide a good concept about mobile cart for EBUS-TBNA cases, and a team approach to the success of EBUS-TBNA.

Chapter 7 describes practical approach to cytological evaluation and adequacy assessment in EBUS-TBNA. All six tables provide useful summary of points to increase the diagnostic yield from EBUS-TBNA. This chapter has high quality figures.

Chapter 8 summarises information on normal and non-neoplastic components and emphasises the need to recognise normal components in order to avoid an over diagnosis or mis-diagnosis in the specimens. The chapter has 24 high quality cytopathology figures.

Chapter 9 highlights description of pulmonary epithelial neoplasms. Lung cancer is the most frequent

cause of a positive EBUS-TBNA with non-small-cell lung cancer (NSCLC) being the most common (70%). This chapter nicely describes cytological features of small-cell carcinoma which stains positively for synaptophysin, thyroid transcription factor 1 (TTF1) and CD56 and have a high Ki 67 proliferation index. Table 1 provides WHO, 2004 classification and Table 2 compares WHO and IASLC/ATS/ERS classifications for small biopsies/cytology. Table 3 provides important information on immune staining pattern and molecular testing for subtypes of NSCLC: adenocarcinoma (ADC), squamous cell carcinoma (SQCC), large cell neuroendocrine carcinoma (LCNEC) and adeno-squamous carcinoma. The chapter provides relevant information on sequencing for EGFR, KRAS, BRAF and PI3Kinase, FISH testing for ALK and FGFR1. There are 31 high-quality figures that provide important description on cytomorphology and immunocytochemical staining of various pulmonary epithelial neoplasms.

Chapter 10 focuses on non-pulmonary-metastatic (breast, prostate, colon, uroepithelial, renal, thyroid and ovarian) carcinoma which is less common than metastatic pulmonary carcinoma. Table 1 provides useful information on CK7, CK20 staining and common site-specific immunocytochemical markers on EBUS-TBNA samples. Table 2 of this chapter provides important information on the origin of squamous cell carcinoma by human papillomavirus (HPV)-related status. The chapter has 14 high quality figures.

Chapter 11 describes rare non-epithelial neoplasms that are encountered in EBUS-TBNA specimens. These include non-Hodgkin's lymphoma, Hodgkin's lymphoma, myeloid sarcoma, plasma cell neoplasms,

dendritic cell tumours, mesenchymal tumours, germ cell tumours, melanoma and mesothelioma. This chapter emphasises about obtaining sufficient material and triaging the specimen for ancillary studies.

Chapter 12 of this book focuses on thymic lesions and neoplasms since these are important in the differential diagnosis of any anterior mediastinal mass. The chapter highlights that there are limited reports that have documented the role and accuracy of EBUS-TBNA for diagnosing thymic tumours. Table 4 of this chapter details important information on immune staining profile of thymoma.

Chapter 13 summarises important information regarding specimen contamination, presence of background material and artifacts. Description of this chapter provides important information to cytopathologist and awareness of these limitation and pitfalls is crucial in order to accurately and confidently make diagnoses using EBUS-TBNA.

This book should serve as a reference book for pathologists, cytopathologists, cytotechnologists, pulmonologists, thoracic surgeons and other clinicians and trainees who perform EBUS-TBNA.

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The Tobacco Epidemic

Under Series: Progress in Respiratory Research (Series Editor: Fleix J.F. Hexth)

Editors: R. Loddenkemper and M. Kreuter; Published by: S. Karger AG, Basel, Swizerland; 2015; 2nd Revised and Extended Edition; Hard Cover; Pages: X + 276, 85 Figures (31 in colour), 29 Tables, ISBN 978-3-318-02656-6; e-ISBN 978-3-318-02657-3

The Tobacco Epidemic provides a comprehensive update of the clinical, public health and political aspects of tobacco smoking. The knowledge on the health hazards of tobacco has increased considerably and the recent data shows that the problems has been increased, considerably that were in low and middle income countries. The book has 23 chapter with 85 figures (31 in colour) and 29 tables covering every aspect of tobacco consumption, health hazardous and remedial measures, namely, History of Tobacco Production and Use, Global Tobacco Epidemic, The Tobacco Epidemic and the Commercial Sector: Tobacco Industry Strategies to increase Profits and Prevent Regulation, Chemistry and Primary Toxicity of Tobacco and Tobacco Smoke, Nicotine Dependence, The Psychology of the Smoker, Respiratory Disorders Related to Smoking Tobacco, Cardiovascular and Other (Except Respiratory) Disorders Related to Smoking Tobacco, Health Effects of Passive Smoking in Children, Health Effects of Passive Smoking in Adults, Economics of Tobacco Use and Control, legislation and Smoking Prevention, The WHO Framework Convention on Tobacco Control, Youth and Tobacco, Impact of Media, Movies and TV on Tobacco Use in the Youth, Social Determinants of Cigarette Smoking, Smoking and Mental Health Problems, Patterns and Predictors of Smoking Cessation, Examining the Role of the Health Care Professional in Controlling the Tobacco Epidemic: Individual, Organizational and Institutional Responsibilities, Pharmacotherapy: Nicotine Replacement Therapy and Other Drugs in Smoking Cessation (including Vaccination), Smokeless Tobacco – Health Hazards or Less Harm?, Waterpipe Tobacco Smoking: A Less Harmful Alternative?, Electronic Cigarettes: The issues behind the Moral Quandary.

The book is written by outstanding international experts, and covers right from the history of tobacco production and its use, the economics of tobacco use and control, as well as the health consequences of active and passive smoking in both adults and children. Special chapters discuss the impact of media, movies and TV on tobacco consumption in young people, the patterns and predictors of smoking cessation in the general population and in different social subgroups, and initiatives supported by the WHO Framework Convention on Tobacco Control. Readers will find the latest information on how nicotine dependence is treated with nicotine replacement products, role of health care professionals in helping smokers to quit, the benefit of smoke-free environments, ban on Smoking related advertisement and price increases. The potential harms and benefits of smokeless tobacco, waterpipe tobacco smoking and electronic cigarettes are also discussed.

Overall the book is excellent in scientific content. The printing quality is also very good and it gives a pleasant reading. This book is a must to read for everyone in the medical profession who treats patients with smoking-related diseases and for those engaged in tobacco control and is certainly a useful reference book for Institutional and Health related Libraries.

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Clinical Tuberculosis: Diagnosis and Management

By Rajendra Prasad and Nikhil Gupta; Published by: Jaypee Brothers Medical Publishers (P) Ltd, New Delhi; 2015; Paperback; Pages: XXIV + 614 (5 pages of colour photographs); ISBN 978-93-5152-221-8

There are relatively few books on clinical aspects of tuberculosis on which there is a large experience in India. The book under review is therefore a useful addition in the list on the subject. Written by an experienced clinician and medical teacher, the book shall greatly help the students and the medical practitioners alike.

The book is quite comprehensive with 50 chapters on different clinical aspects on tuberculosis. As the name implies, there is a larger focus on the clinical features, diagnostic investigations, complications and treatment. As expected, it does not burden the readers with in-depth discussion on pathophysiology and microbiology of tuberculosis. Nonetheless, it includes information on important subjects, such as clinical definitions and epidemiology, etc.

There is adequate coverage of subjects, such as extra-pulmonary tuberculosis and drug-resistant tuberculosis. Multi-drug resistant tuberculosis has been particularly discussed in details with inclusion of case-discussion. The chapters on extra-pulmonary tuberculosis and tuberculosis in specific conditions make it valuable for not only the chest physicians but also the medical practitioners of other specialties.

Each chapter has been optimally referenced with a number of photographs, especially of X-rays. One would have wished the quality of pictures to be somewhat better than the present. That was perhaps due to the inclusion of old films which could be helped. In any case, the purpose is well served.

There are also a few chapters on tuberculosis control including the strategies under Revised National TB Control Programme. This is a welcome addition to keep the readers aware on public health issues.

I find it simple in language and easy to read. I am sure that the postgraduate students in chest-diseases and tuberculosis and chest diseases as well as in medicine will benefit from the experience of Dr Prasad, so nicely summarised in this book.

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MDR and XDR Tuberculosis

By Rajendra Prasad and Nikhil Gupta; Published by: Jaypee Brothers Medical Publishers (P) Ltd, New Delhi; 2015; Paperback; Pages: XVIII + 276; ISBN 978-93-5152-220-1

This book is authored by Professor Rajendra Prasad, and co-authored by Nikhil Gupta. The book is written very well with 27 chapters. It includes almost all aspects of various drug-resistant tuberculosis (TB) encountered by the treating physician. It includes the case definitions of drug-resistant TB, various anti-tuberculosis drugs used in treating such cases, management of re-treatment cases in TB, the current status of mono- and poly-drug resistant TB, MDR-TB and XDR-TB. Diagnostic approaches and management issues and their solutions have been brought out in a very clear and lucid manner. A chapter on the issue of drug resistance in extra-pulmonary TB and children has rightly got a place in the monograph. The authors have also mentioned about the TB control in India particularly the PMDT (programmatic management of drug-resistant TB). The most important issue of infection control in TB has also been discussed in one of the chapters. Finally, the authors have discussed about various newer anti-tuberculosis drugs and their place in the management of drug-resistant TB.

The senior author, Professor Rajendra Prasad is one of the eminent pulmonologists, teacher and academican of India having experience in the field over the past four decades. To make the reading more interesting and better understanding there are case-based discussions. This book will be quite useful to undergraduates, postgraduates and postdoctoral medical students, general practitioners and progmmme managers for TB control as well as researchers in the field of TB. It will serve as a very useful practical guide on various aspects of drug-resistant TB.

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